

ANTENNA SYSTEMS,
ELECTRONICS AND ACCESSORIES
ANTENE, ELEKTRONIKA IN PRIBOR

ABOUT US

O NAS

ABOUT ISKRA

Iskra ranks among the leading Central European companies in the fields of energy, efficient installations, traffic, telecommunications, information technology and business solutions. We have long experience in developing and manufacturing devices, and wide engineering knowledge in realizing demanding projects in the fields of energy, industrial processes and information solutions. Our products and solutions are present in over 80 countries on all continents.

O ISKRI

Iskra je eno vodilnih vodilnih srednjeevropskih podjetij na področjih energetike, komponent s področja elektrotehnike, učinkovitih inštalacij, prometa, telekomunikacij, informatike ter varovanja, oskrbe in upravljanja poslovnih objektov. Imamo petinsedemdesetletne izkušnje pri razvoju in proizvodnji naprav ter bogato inženirsko znanje pri realizaciji najzahtevnejših projektov na področjih energetike, telekomunikacij, prometa in industrijskih procesov. Naši kupci so multinacionalke z različnih področij, ki segajo od težke industrije, energetike, bele tehnike do obnovljivih virov. S svojimi izdelki, storitvami in rešitvami smo prisotni v več kot 80 državah na vseh kontinentih.

ABOUT ANTENNAS SYSTEMS

The programme of antenna systems originates from the former company "Iskra Antene" with a history that goes back to 1955, the year of the foundation of the company "Elektron". From the start, the programme has been involved in products for radio, T.V. & telecommunications. We supply a comprehensive range of products for the reception of analogue and digital terrestrial & mobile telecommunication signals.

O PROGRAMU ANTEN

Njena zgodovina sega v leto 1955, ko je bilo ustanovljeno podjetje Elektron. Že vse od ustanovitve se je podjetje ukvarjalo z izdelki za radio, TV in mobilne telekomunikacije. Danes podjetje ponuja zaokroženo paleto izdelkov za sprejem analognih in digitalnih zemljskih signalov in signalov za digitalna omrežja.



ANTENNAS / ANTENE

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ANTENNAS ELECTRONICS / ANTENSKA ELEKTRONIKA

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ANTENNA SYSTEMS

ANTENSKI SISTEMI



All ISKRA antennas are optimized for best signals reception in the frequency band for which they are intended. A major feature of the antennas we produce is that they all have a built-in type »F« female connector for simple installation of the coaxial cable to the antenna.

Antennas are constructed with aluminium alloy type EN AW 3005 (AlMn1Mg0,5) H165, which has high mechanical strength and resistance to the most adverse weather & temperature variations throughout the world.

Other metal parts are made from hot galvanized steel that is corrosion resistant. Plastic components are UV resistant. That ensures quality and longevity of the product.

Antennas are individually packaged into PVC bags, some having a cardboard header with technical instructions for in store placement & visual product promotion.

We can also supply antennas which are packaged in the individual printed or plain cardboard boxes. Transport cardboard boxes are always unprinted, in brown colour. It's made from a stronger cardboard to sufficiently protect the antenna in transit from our warehouse to the customer. Transport cardboard box typically contains 5 or 10 antennas, depending on the product type and size.

Vse ISKRA antene so optimizirane za najboljši sprejem signalov na frekvenčnem pasu za katerega so narejene. Večji del anten ima vgrajen »F« ženski konektor za lažjo montažo koaksialnega kabla na anteno.

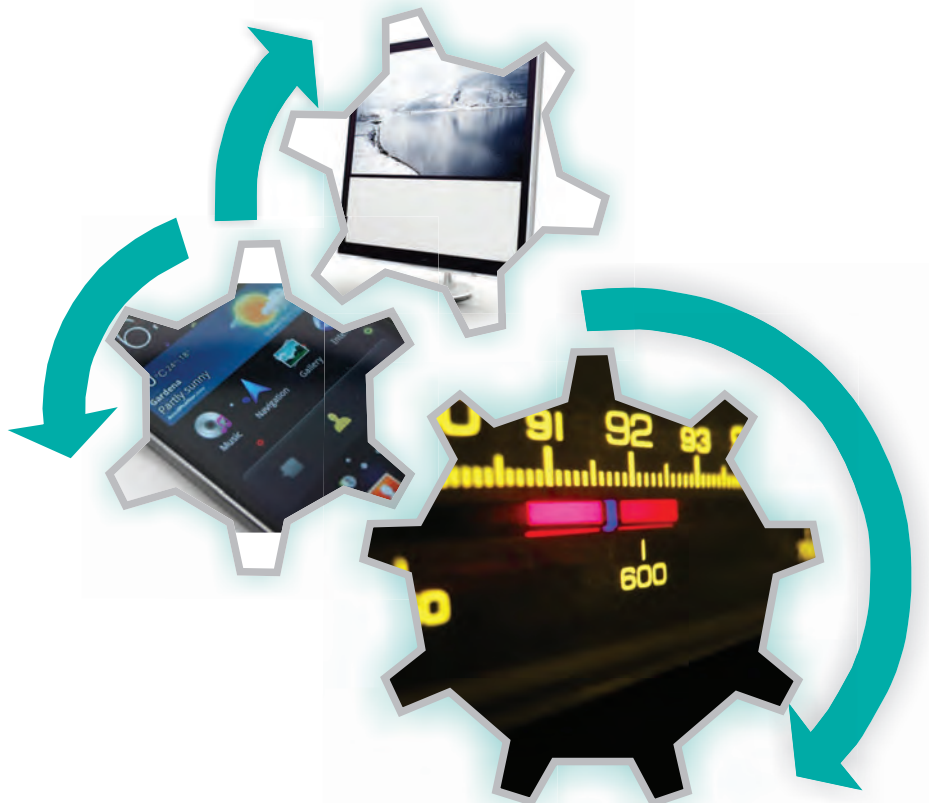
Antene so izdelane iz aluminijeve zlitine EN AW 3005 (AlMn1Mg0,5) H165, ki ima visoko mehansko čvrstost tudi v najbolj neugodnih vremenskih pogojih.

Ostali kovinski deli antene so iz vroče cinkanega jekla, ki je korozijsko odporen, plastične komponente pa so izdelane iz plastike, ki je UV obstojna. Njene lastnosti so v vseh vremenskih pogojih nespremenljive.

Antene so posamično pakirane v PVC vrečkah, nekatere imajo priloženo obešanko za lažje obešanje antene na obešalo v trgovini. Nekatere antene se pakirane v nepotiskano ali potiskano posamično embalažo. Skupinska transportna embalaža je vedno nepotiskana, rjave barve. Izdelana iz močnejšega kartona, ki anteno dovolj zaščiti na poti od našega skladišča do kupca. V skupinski transportni embalaži je običajno 5 ali 10 anten.

TYPES / TIPI

- Radio Antennas
Radijske antene
- LOG Antennas
LOG antene
- YAGI Antennas
YAGI antene
- Indoor Antennas
Sobne antene
- Mobile Networks Antennas
Antene za mobilna omrežja



RADIO ANTENNAS

RADIJSKE ANTENE

FM (87.5 - 108 MHz)
DAB (217 - 240 MHz)
DAB+ (170 - 240 MHz)



FM-10 F



DAB+ FM F



FM-10 VF



FM-30 F

Impedance Impedanca	Connector Konektor	„F“ female	Mounting on mast Montaža na drog	D= 20-54 mm ... saddle 4 D= 20-62 mm ... saddle 5
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D - outside mast diameter /
zunanji premer droga

TECHNICAL DATA / TEHNIČNI PODATKI

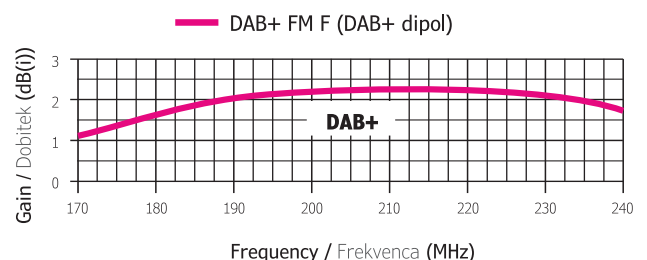
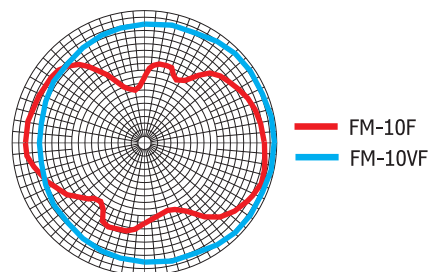
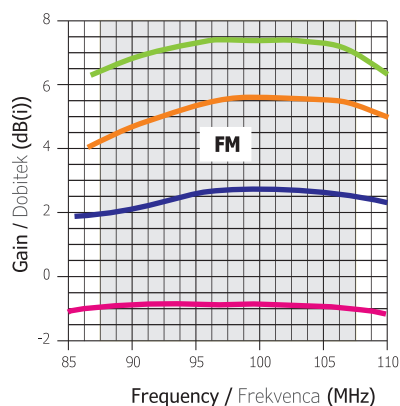
Frequency Frekvenca	Type Tip	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Antenna carrier Nosilec	Length Dolžina antene	Packing Pakiranje		
								pcs. korn.	cm	m ³
FM	FM-10 F	1	-0.8 dB(i)	-	Horiz. 360°	18 x 18 *	-	1	53 x 28 x 9	0.013
	FM-10 VF	1	Horiz. -1 dB(i) Vert. -2 dB(i)	0 dB	Vert. 360°	18 x 18 *	-	5	81 x 36 x 17	0.050
	FM-15 F	1	2.2 dB(i)	0 dB	Vert. 360°	18 x 18 *	-	10	111 x 34 x 27	0.102
	FM-30 F	3	4.5 -5.5 dB(i)	10 - 15 dB	Horiz. 70° Vert. 110°	18 x 18 **	116 cm	5	81 x 36 x 17	0.050
	FM-50 F	5	6.5 -7.5 dB(i)	18 - 24 dB	Horiz. 50° Vert. 70°	18 x 18 **	176 cm	15	111 x 34 x 27	0.102
	FM-50 F	5	6.5 -7.5 dB(i)	18 - 24 dB	Horiz. 50° Vert. 70°	18 x 18 **	176 cm	10	146 x 22 x 18	0.058
DAB+	DAB+ FM F	1+1	FM: -0.8 dB(i) DAB+: 2.2 dB(i)	0 dB	FM: 360° DAB+: ±90°	18 x 18 **	-	1	145 x 14 x 13	0.026
								10	156 x 25 x 31	0.121
								1	145 x 14 x 13	0.026
								10	148 x 34 x 33	0.164
								5	71 x 59 x 36	0.151
								10	71 x 59 x 61	0.256

* Antenna has saddle 4, without inclination, only horizontal polarization / Antena ima sedlo 4, brez inklinacije, samo horizontalna polarizacija

** Antenna has saddle 5, inclination 0-10°, horizontal or vertical polarization / Antena ima sedlo 5, inklinacija 0-10°, horizontalna ali vertikalna polarizacija

DIAGRAMS OF GAINS / GRAFI DOBITKOV

— DAB+ FM F (FM dipol)
— FM-15 F
— FM-30 F
— FM-50 F



RADIO ANTENNAS

RADIJSKE ANTENE

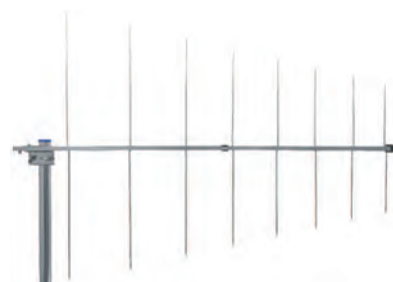
FM (87.5 - 108 MHz)
DAB (217 - 240 MHz)
DAB+ (170 - 240 MHz)



DAB+ FM F



DAB 5 F



DAB+ 16 LOG F

Impedance Impedanca	Connector Konektor	„F“ female	Mounting on mast Montaža na drog	D= 20-54 mm ... saddle 4 D= 20-62 mm ... saddle 5
------------------------	-----------------------	------------	-------------------------------------	--

D - outside mast diameter /
zunanji premer droga

TECHNICAL DATA / TEHNIČNI PODATKI

Frequency Frekvenca	Type Tip	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Antenna carrier Nosilec	Length Dolžina antene	Packing Pakiranje				
								pcs. kom.	cm	m ³		
YAGI	DAB	DAB 5 F	8 dB(i)	19 - 26 dB	Vert. 65°	18 x 18 **	110,5 cm	10	141 x 25 x 24	0,085		
		DAB 5 FG ***	5								28 dB(i)	
	DAB+	FM	DAB+ FM F	1 + 1	FM: -0,8 dB(i) DAB+: 2,2 dB(i)	0 dB	FM: 360° DAB+: ±90°	18 x 18 **	-	5 10	71 x 59 x 36 71 x 59 x 61	0,151 0,256
			DAB+ 1 F	1	2,2 dB(i)	0 dB	360°	18 x 18 **	25,5 cm	10	80 x 31 x 23	0,057
		DAB+ 1 FG ***	1	22,2 dB(i)								
		DAB+ 4 F	4	5,5 - 6,5 dB(i)	14 - 18 dB	Vert. 65°	18 x 18 **	81 cm	10	111 x 23 x 27	0,069	
DAB+ 4 FG ***	4	25,5 - 26,5 dB(i)										
LOG		DAB+ 16 LOG F	16	10 dB(i)	22 dB	Horiz. 45° Vert. 55°	2x 14 x 14 *	124 cm	1 10	124 x 86 x 7,5 126 x 92 x 43	0,080 0,50	

* Antenna has saddle 4, without inclination, only vertical polarization / Antena ima sedlo 4, brez inklinacije, samo vertikalna polarizacija

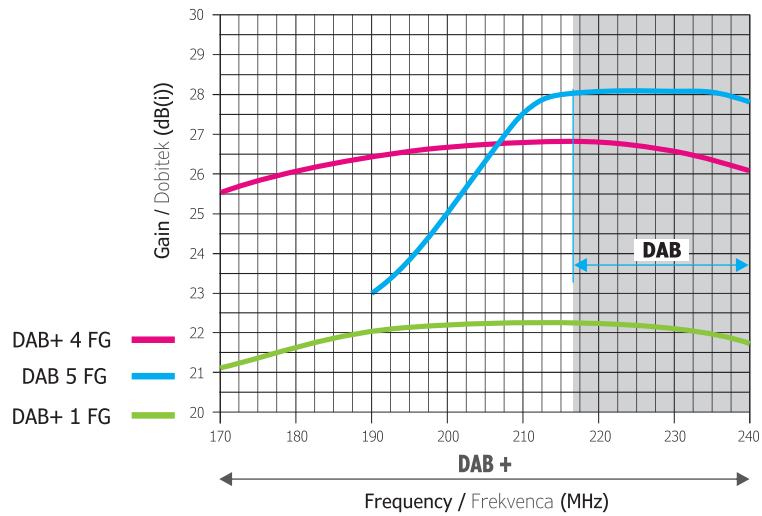
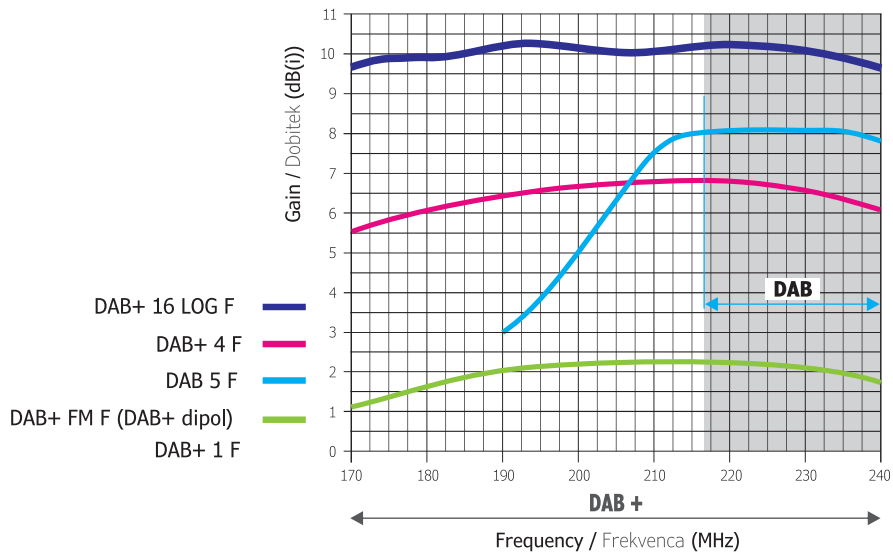
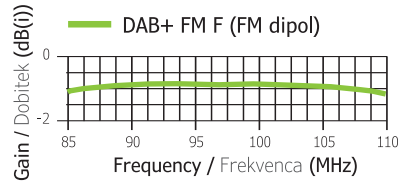
** Antenna has saddle 5, inclination 0-10°, horizontal or vertical polarization / Antena ima sedlo 5, inklinacija 0-10°, horizontalna ali vertikalna polarizacija

*** Antenna with active dipole (dipole with built-in amplifier) DIGI-YAGI 20 VD (see page 29). / Antena z aktivnim dipolom (dipol z vgrajenim ojačevalnikom) DIGI-YAGI 20 VD (glejte stran 29).

RADIO ANTENNAS

RADIJSKE ANTENE

DIAGRAM OF GAINS / GRAF DOBITKOV

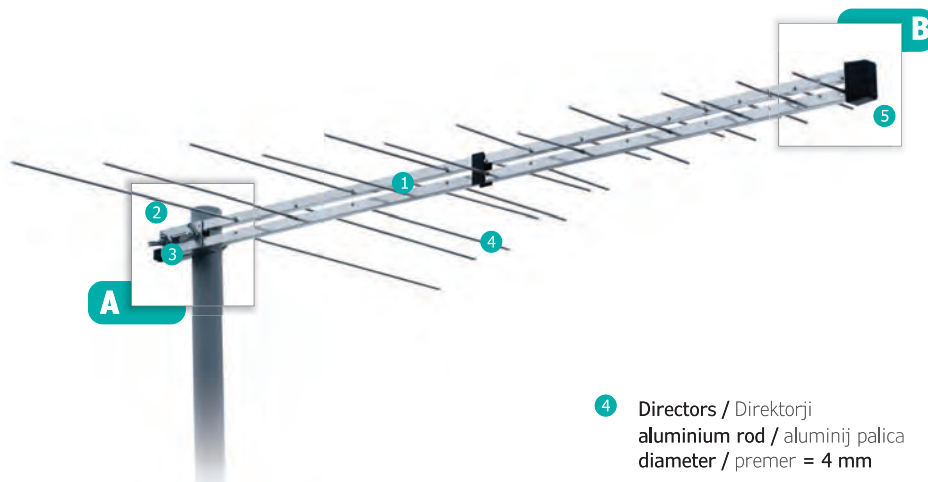


LOG ANTENNAS

LOG ANTENE

DESCRIPTION OF DIFFERENT VERSIONS OF LOG ANTENNAS OPIS RAZLIČNIH IZVEDB LOG ANTEN

- 1 Antenna carriers / Nosilca antene
aluminium tube / aluminij cev
14x14x0.7 EN AW 3005 (AlMn1Mg0.5) H165
- 2 Iron parts / Kovinski deli
hot galvanized steel / vroče cinkano jeklo
- 3 Fixing to mast / Pritrditev antene na drog
"U" screw M6 / "U" vijak M6



- 4 Directors / Direktorji
aluminium rod / aluminij palica
diameter / premer = 4 mm
- 5 Plastics / Plastika
ABS UV resistant / ABS UV obstojna

STANDARD VERSION FOR MOUNTING ON MAST STANDARDNA IZVEDBA ZA MONTAŽO NA DROG

The standard version allow mounting the antenna on the mast only in horizontal position (for horizontal polarisation) and without inclination. Antenna can be mounted in vertical position (for vertical polarisation) with mounting accessories **D2-V** (see page 46).

Mounting on mast with outside mast diameter $D = 20 \dots 54$ mm
Eg.: **P-2845 F**

Standardna izvedba omogoča montažo antene na drog le v horizontalnem položaju (za horizontalno polarizacijo) in brez inklinacije. Anteno lahko montirate na drog v vertikalnem položaju (za vertikalno polarizacijo) z uporabo dodatnega pribora **D2-V** (glejte stran 46).

Montaža na drog z zunanjim premerom $D = 20 \dots 54$ mm
Npr. **P-2845 F**



H/V VERSION FOR MOUNTING ON MAST H/V IZVEDBA ZA MONTAŽO NA DROG

The H/V version allow mounting antenna on the mast in horizontal position (for horizontal polarisation) or in vertical position (for vertical polarisation) without additional mounting accessories and without inclination.

Mounting on mast with outside mast diameter $D = 20 \dots 57$ mm
Eg.: **P-2845 F H/V**

H/V izvedba omogoča montažo antene na drog v horizontalnem položaju (za horizontalno polarizacijo) ali v vertikalnem položaju (za vertikalno polarizacijo) brez dodatnega pribora in brez inklinacije.

Montaža na drog z zunanjim premerom $D = 20 \dots 57$ mm
Npr. **P-2845 F H/V**



LOG ANTENNAS

LOG ANTENE

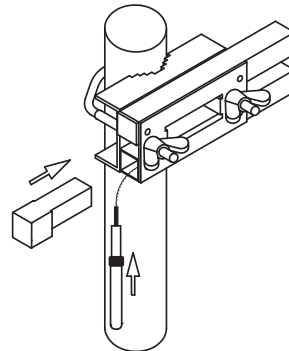
VERSION - WITHOUT "F" FEMALE CONNECTOR IZVEDBA - BREZ "F" ŽENSKEGA KONEKTORJA

The cable must be inserted into the bottom antenna carrier. Coaxial cable is connected to antenna mechanically by screws.

Eg: **P-2845**

Kabel je potrebno vstaviti v spodnji nosilec antene. Priklp kabla je mehanski, s pomočjo vijakov.

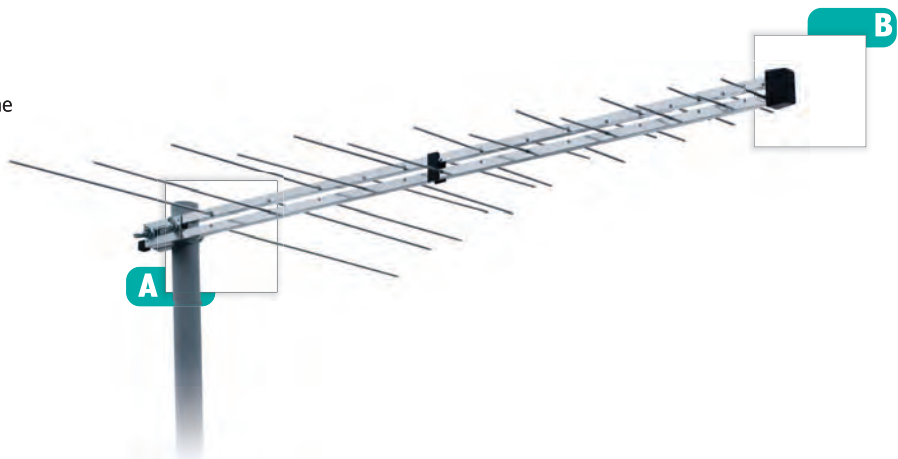
Npr. **P-2845**



VERSION - WITH BUILT-IN "F" FEMALE CONNECTOR IZVEDBA - Z VGRAJENIM "F" ŽENSKIM KONEKTORJEM

The antenna has a built-in "F" female connector. Coax. cable with "F" male connector must be connected to the antenna and protected by rubber protector (antenna already includes connector and rubber protector).

Antena ima vgrajen "F" ženski konektor. Kabel se s pomočjo "F" moškega konektorja priključi na anteno in zaščiti s protektorjem (konektor in protektor sta priložena).



LOG ANTENNAS

LOG ANTENE

VERSION - WITH FIXES "F" FEMALE CONNECTOR IZVEDBA - S FIKSNIM "F" ŽENSKIM KONEKTORJEM

Passive antenna without amplifier.

Pasivna antena brez ojačevalnika.

Passive antenna can have following built-in inside the antenna carrier:

- only F female connector Eg.: **P-20 F**
- F female connector with LTE cut filter (see page 19)
 - LTE 800 LIGHT filter Eg.: **P-20 FLT**
 - LTE 700/800 LIGHT filter Eg.: **P-20 FLT7**

Pasivna antena ima v nosilcu antene vgrajen:

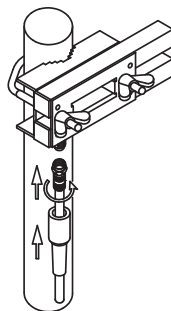
- samo F ženski konektor Npr.: **P-20 F**
- F ženski konektor z LTE sesalnim filtrom (glej stran 19)
 - LTE 800 LIGHT filter Npr.: **P-20 FLT**
 - LTE 700/800 LIGHT filter Npr.: **P-20 FLT7**



A



B



Active antenna with amplifier.

Aktivna antena z ojačevalnikom.

Active antenna can have built-in following amplifiers inside the antenna carrier:

- low noise amplifier **DIGI-LOG 14VU** (see page 17) Eg.: **P-2845 DTT/G**
- low noise amplifier **DIGI-LOG 15R-U** (with SWITCH system) (see page 17) Eg.: **P-2845 G-SWITCH**
- low noise amplifier **DIGI-LOG 15RU L7** (with SWITCH system and LTE cut filter LTE 700/800 LIGHT) (see page 17) Eg.: **P-2845 G-SWITCH L7**
- low noise amplifier **DIGI-LOG 14VU L8** (with LTE cut filter LTE 800 LIGHT) (see page 17) Eg.: **P-2845 GLT**

Suitable power supply unit with output DC 12 V, 150 mA (see page 45).

Aktivna antena ima lahko v nosilcu antene vgrajena sledeča ojačevalnike:

- nizkošumni ojačevalnik **DIGI-LOG 14VU** (glejte stran 17) Npr.: **P-2845 DTT/G**
- nizkošumni ojačevalnik **DIGI-LOG 15R-U** (s SWITCH sistemom) (glejte stran 17) Npr.: **P-2845 G-SWITCH**
- nizkošumni ojačevalnik **DIGI-LOG 15RU L7** (s SWITCH sistemom in LTE sesalnim filtrom LTE 700/800 LIGHT) (glejte stran 17) Npr.: **P-2845 G-SWITCH L7**
- nizkošumni ojačevalnik **DIGI-LOG 14VU L8** (z vgrajenim LTE sesalnim filtrom LTE 800 LIGHT) (glejte stran 17) Npr.: **P-2845 GLT**
- nizkošumni ojačevalnik **DIGI-LOG 14VU L7** (z vgrajenim LTE sesalnim filtrom LTE 700/800 LIGHT) (glejte stran 17) Npr.: **P-2845 GLT7**

Primeren napajalnik je z izhodom enosm. 12V, 150 mA (glejte stran 45).

VERSION WITH ROTATING "F" FEMALE CONNECTOR IZVEDBA - Z VRTLJIVIM "F" ŽENSKIM KONEKTORJEM

If this version it is possible to turn "F" connector for 90° very easy. With this version it is suitable to use antenna in vertical polarization. It is used only for passive antennas without built-in LTE filters or antenna amplifier.

Eg.: **P-2845 FZ**

V tej izvedbi je mogoče zavrteti "F" konektorja za 90°. Ta izvedba je še posebej primerna za uporabo antene tudi v vertikalni polarizaciji. Uporablja se le pri pasivnih antenah brez vgrajenega LTE filtra ali antenskega ojačevalnika.

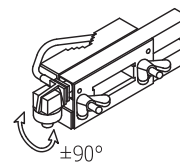
Npr.: **P-2845 FZ**



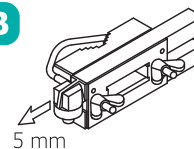
A



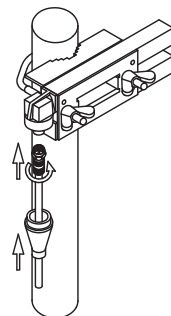
B



±90°



5 mm



LOG ANTENNAS - VHF

LOG ANTENE - VHF

VHF
Ch. 5-12 (174 - 230 MHz)



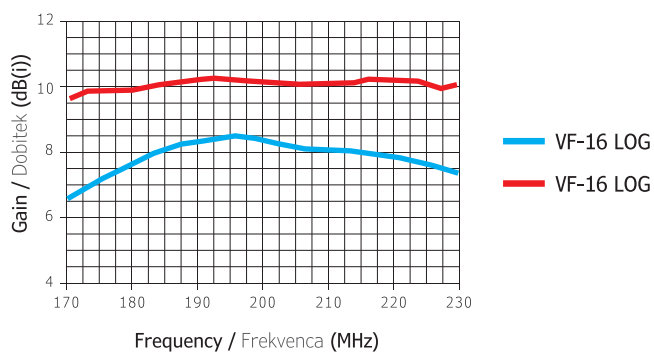
VF-12 LOG F

TECHNICAL DATA / TEHNIČNI PODATKI

Type Tip	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Connection Priključek	Impedance Impedanca	Length Dolžina antene	Packing Pakiranje		
								pcs. kos.	cm	m ³
VF-12 LOG	12	7,5 - 8,5 dB(i)	20 dB	Horiz. 50° Vert. 60°	—	75 Ohm	69 cm	5	90 x 70 x 17	0,107
VF-12 LOG F*								10	90 x 79 x 17	0,121
VF-16 LOG	16	10 dB(i)	22 dB	Horiz. 45° Vert. 55°	—	75 Ohm	121 cm	1	122 x 87 x 7	0,074
VF-16 LOG F*								10	157 x 98 x 17	0,262

* Passive antenna with different connections (see pages 9). / Pasivna antena z različnimi priklopi (glejte strani 9).

DIAGRAM OF GAINS / GRAF DOBITKOV



LOG ANTENNAS - UHF

LOG ANTENE - UHF

UHF
Ch. 21-69 (470 - 862 MHz)



P-20



P-20 WF

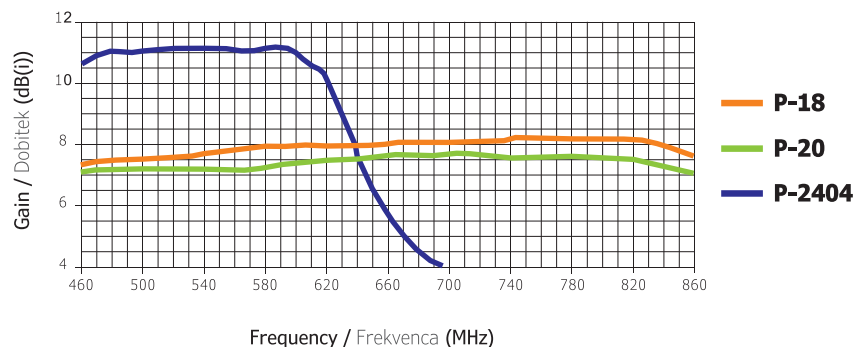
TECHNICAL DATA / TEHNIČNI PODATKI

Type Tip	Channels (frequency) Kanali (frekvenca)	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Connection Priključek	Impedance Impedanca	Length Dolžina antene	Packing Pakiranje		
									pcs. kos	cm	m ³
P-18	Ch. 21 - 69 (470- 862 MHz)	18	8 dB(i)	20 dB	Horiz. 47 - 53° Vert. 50 - 58°	-	75 Ohm	60 cm	10	111 x 34 x 16	0.060
P-18 F*			23 dB(i)			"F"					
P-18 DTT/G**											
P-20	Ch. 21 - 69 (470- 862 MHz)	20	7,5 dB(i)	21 dB	Horiz. 49 - 56° Vert. 53 - 60°	-	75 Ohm	40 cm	25	111 x 34 x 27	0.102
P-20 F											
P-20 WF*			44 cm			"F"					
P-20 DTT/G **			40 cm								
P-20 W DTT/G**			44 cm								
P-2404	Ch. 21 - 37 (470- 606 MHz)	24	11 dB(i)	>27 dB	Horiz. 39 - 48° Vert. 42 - 51°	-		116 cm	10	148 x 34 x 33	0.164
P-2404 F*			26 dB(i)			"F"					
P-2404 DTT/G**											

* Passive antenna with different connections (see pages 9, 19). / Pasivna antena z različnimi priklopi (glejte strani 9, 19).

** Active antenna with built-in low noise amplifier (see pages 9, 17). / Aktivna antena z vgrajenim nizkošumnim ojačevalnikom (glejte strani 9, 17).

DIAGRAM OF GAINS / GRAF DOBITKOV



LOG ANTENNAS - UHF

LOG ANTENE - UHF

MOUNTING ANTENNA ON WINDOW'S FRAME PRITRDITEV ANTENE NA OKENSKI OKVIR

Special type are P-20 WF and P-20 W DTT/G. They contain additional carrier 18x18 mm for mounting antenna on window's frame, for horizontal or vertical polarisation.

Posebna izvedba sta anteni P-20 W in P-20 W DTT/G, ki imata zgornji nosilec daljši. Priložen ima dodatni nosilec 18x18 mm, ki omogoča pritrditev antene na okenski okvir za horizontalno ali vertikalno polarizacijo.

P-20 WF
P-20 W DTT/G



For horizontal polarization / za horizontalno polarizacijo



For vertical polarization / za vertikalno polarizacijo

P-20 W DTT/G KIT P-20 W DTT/G KOMPLET



Antenna with built-in amplifier
Antena z vgrajenim ojačevalnikom
P-20 W DTT/G



Coax. cable extension
Koaksialni podaljšek
L = 10 m



Power supply
Napajalnik
DC 12 V / 150 mA



Polybag with hanging carton
Vrečka z obešanko

LOG ANTENNAS - UHF

LOG ANTENE - UHF

UHF
Ch. 21-69 (470 - 862 MHz)



P-2845

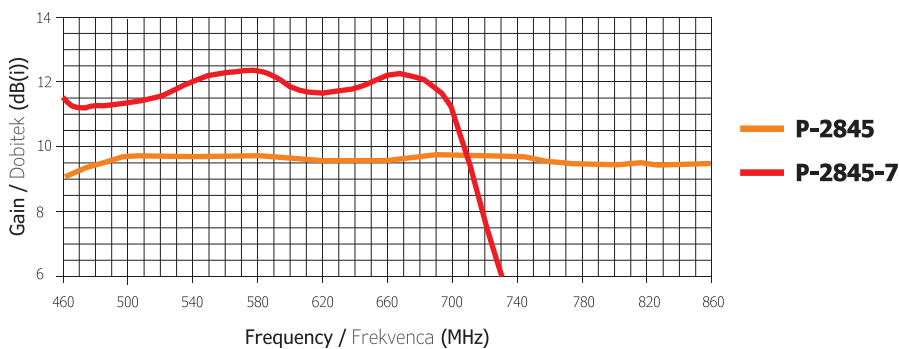
TECHNICAL DATA / TEHNIČNI PODATKI

Type Tip	Channels (frequency) Kanal (frekvenca)	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Connection Priključek	Impedance Impedanca	Length Dolžina antene	Packing Pakiranje		
									pcs.	cm	m ³
P-2845	Ch. 21 - 69 (470 - 862 MHz)	28	9,5 dB(i)	24 dB	Horiz. 35 - 45°	-	75 Ohm	106 cm	1	106 x 34,5 x 5,5	0.020
P-2845 F *						Vert. 55 - 46°		"F"	5	111 x 34 x 16	0.060
P-2485 DTT/G **					24,5 dB(i)				10	111 x 34 x 27	0.102
P-2845-7 ***	Ch. 21 - 48 (470 - 694 MHz)	28	12,5 dB(i)	27 dB	Horiz. 30 - 39°	-	75 Ohm	118 cm			
P-2845 F * ***						Vert. 42 - 51°		"F"	10	120 x 40 x 27	0.130
P-2485-7 DTT/G ***					27,5 dB(i)						


* Passive antenna with different connections (see pages 9, 19). / Pasivna antena z različnimi priklopi (glejte strani 9, 19).

** Active antenna with built-in low noise amplifier (see pages 9, 17). / Aktivna antena z vgrajenim nizkošumnim ojačevalnikom (glejte strani 9, 17).

DIAGRAM OF GAINS / GRAF DOBITKOV




P-2845 DTT/G KIT
P-2845 DTT/G KOMPLET




Antenna with built-in amplifier
Antena z vgrajenim ojačevalnikom
P-2845 DTT/G

+



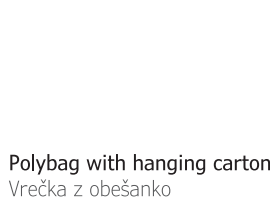
Coax. cable extension
Koaksialni podaljšek
L = 10 m

+



Power supply
Napajalnik
DC 12 V / 150 mA

+

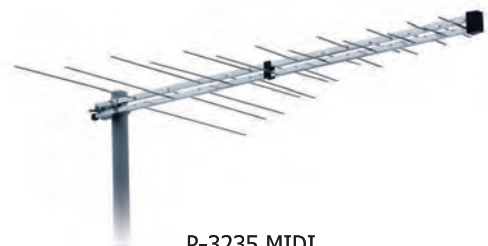


Polybag with hanging carton
Vrečka z obešanko

LOG ANTENNAS - VHF/UHF

LOG ANTENE - VHF/UHF

VHF + UHF
Ch. 5 -12 (174 - 230 MHz)
Ch. 21-69 (470 - 862 MHz)



P-3235 MIDI

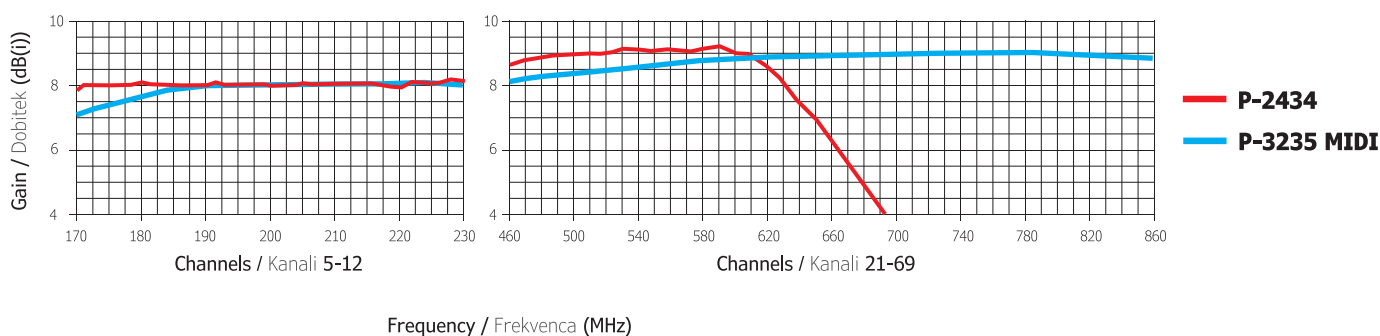
TECHNICAL DATA / TEHNIČNI PODATKI

Type Tip	Channels (frequency) Kanali (frekvenca)	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Connection Priključek	Impedance Impedanca	Length Dolžina antene	Packing Pakiranje		
									pcs.	cm	m ³
P-2434 P-2434 F*	Ch. 5 - 12 (174 - 230 MHz)	24	Ch.5-12: 8 dB(i) Ch.21-37: 9 dB(i)	20-24 dB	Horiz. 46 - 57° Vert. 54 - 66°	— "F"	75 Ohm	105.5 cm	10	117.5 x 99 x 17	0.198
P-2434 DTT/G **	Ch. 21 - 37 (470 - 606 MHz)		24 dB(i)								
P-3235 MIDI P-3235 MIDI F*	Ch. 5 - 12 (174 - 230 MHz)	32	7.5-8.5 dB(i)	26 dB	Horiz. 45 - 55° Vert. 55 - 65°	— "F"	75 Ohm	120 cm	10	117.5 x 98.5 x 17	0.197
P-3235 MIDI DTT/G **	Ch. 21 - 69 (470 - 862 MHz)		23 dB(i)								

* Passive antenna with different connections (see pages 9, 19). / Pasivna antena z različnimi prikljopi (glejte strani 9, 19).

** Active antenna with built-in low noise amplifier (see pages 9, 17). / Aktivna antena z vgrajenim nizkošumnim ojačevalnikom (glejte strani 9, 17).

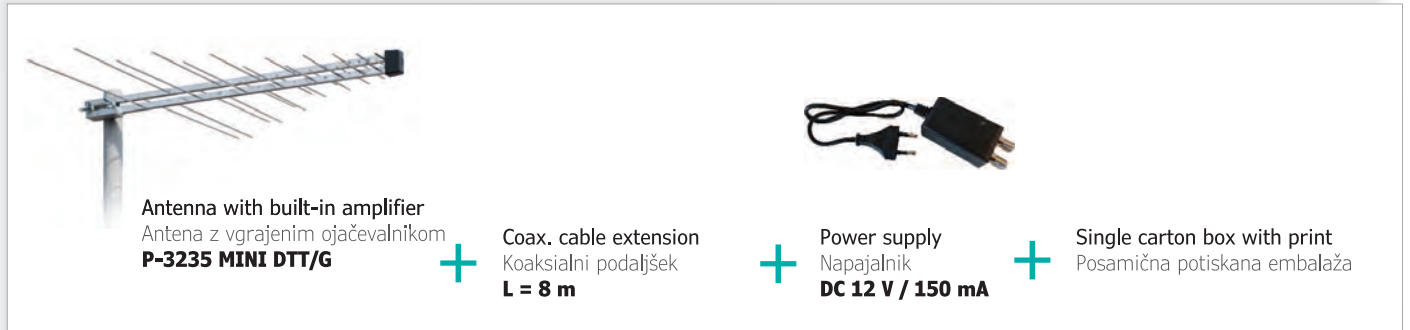
DIAGRAMS OF GAINS / GRAFI DOBITKOV



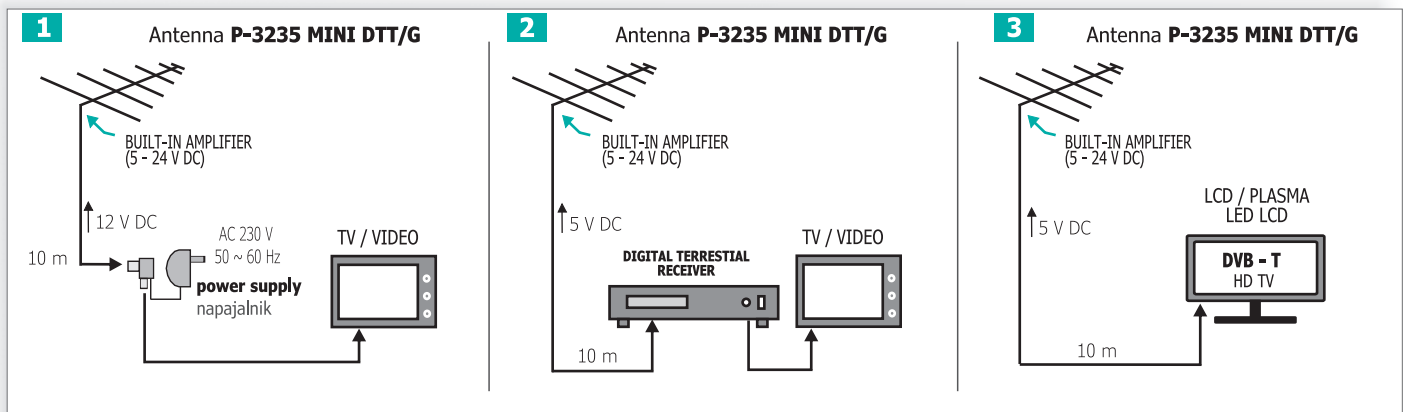
LOG ANTENNAS - VHF/UHF

LOG ANTENE - VHF/UHF

G-3235 ME-N KIT
G-3232 ME-N KOMPLET



EXAMPLES OF CONNECTION G-3235 ME-N
PRIMER PRIKLJUČITVE G-3235 ME-N



BUILT-IN ANTENNAS AMPLIFIERS FOR LOG ANTENNAS

VGRAJENI ANTENSKI OJAČEVALNIK ZA LOG ANTENE

Low-noise antenna amplifier serie DIGI-LOG is built-in inside aluminium antenna carrier 14x14 mm. It is used only for LOG antennas. Amplifier can be supplied from outside power supply* or directly from DVB-T receiver. Power supply is provided through the same coax. cable as reception signal.

Nizkošumni antenski ojačevalnik serije DIGI-LOG je vgrajen v notranjosti aluminijastega nosilca 14x14 mm. Uporablja se le pri LOG antenah. Napaja se iz zunanjega napajalnika* ali direktno iz digitalnega zemeljskega sprejemnika. Napajanje poteka preko istega koaks. kabla kot je prenos signala iz antene k TV.

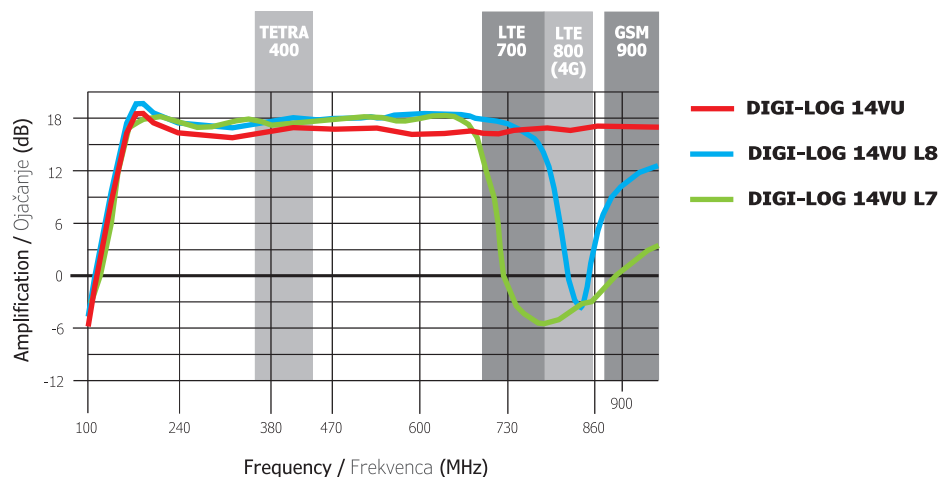
TECHNICAL DATA / TEHNIČNI PODATKI

Amplifier type Tip ojačevalnika	Frequency range Frekvenčni pas	Amplification Ojačanje	Cutting freq. (notch filter) Dušenje frekv. (sesalni filter)	Noise figure Šumno št.	Power supply Napajanje	Impedance / Connector Impedance / konektor	Additional mark in antenna - Eg. Dodatna oznaka pri anteni - primer
DIGI-LOG 14U ¹⁾	Ch. 5 - 69 174 - 862 MHz		-				P-2845 DTT/G
DIGI-LOG 14VU L8 ²⁾ (filter LTE 800 LIGHT)	Ch. 5 - 60 174 - 790 MHz	16 dB	791 - 862 MHz: - 20 dB		25 mA 5 - 24 V DC		P-2845 GLT
DIGI-LOG 14VU L7 ³⁾ ** (filter LTE 700/800 LIGHT)	Ch. 5 - 48 174 - 694 MHz		698 - 862 MHz: - 22 dB			75 Ohm * "F" female "F" ženski	P-2845 GLT7
DIGI-LOG 15R-U ⁴⁾ (NOTCH filters)	Ch. 21 - 69 470 - 862 MHz		350 - 460 MHz: - 26 dB 890 - 960 MHz: - 24 dB	2 dB			P-2845 G-SWITCH
DIGI-LOG 15RU L7 ⁵⁾ ** (filter LTE 700/800)	Ch. 21 - 48 470 - 694 MHz	15 dB	698 - 8670 MHz: - 22 dB		83 mA 5 - 24 V DC		P-2845 G-SWITCH L7

* Recommended power supply with output DC 12 V, 150 mA (see page 45). / Priporočamo napajalnik z izhodom nosm. 12 V, 150 mA (glejte stran 45).

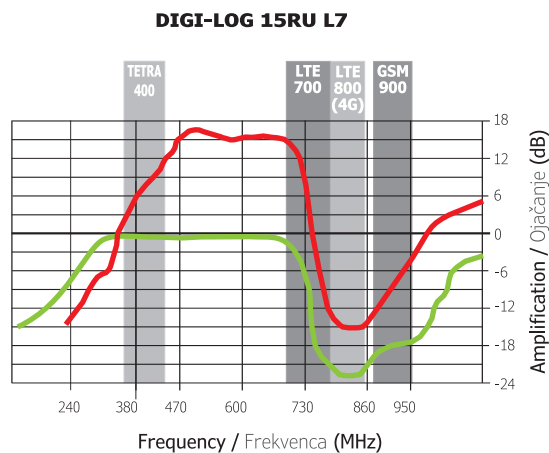
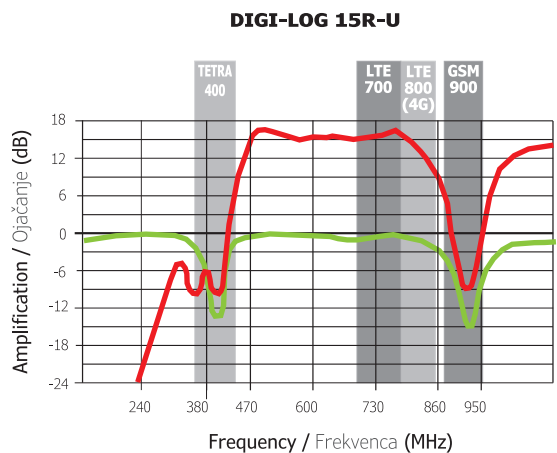
- 1) Antenna amplifier DIGI-LOG 14VU has built-in no LTE filters. / Antenski ojačevalnik DIGI-LOG 14VU nima vgrajenih nobenih LTE filtrov.
- 2) Antenna amplifier DIGI-LOG 14VU L8 has built-in LTE CUT filter LTE 800 LIGHT for cutting LTE 800 frequencies. / Antenski ojačevalnik DIGI-LOG 14VU L8 ima vgrajen LTE sesalni filter LTE 800 LIGHT za dušenje LTE 800 signalov.
- 3) Antenna amplifier DIGI-LOG 14VU L7 has built-in LTE CUT filter LTE 700/800 LIGHT for cutting LTE 700/800 frequencies. / Antenski ojačevalnik DIGI-LOG 14VU L7 ima vgrajen LTE sesalni filter LTE 700/800 LIGHT za dušenje LTE 700/800 signalov.
- 4) Antenna amplifier DIGI-LOG 15R-U has built-in SWITCH system and 4 NOTCH (stop band) filters for TETRA 400 and GSM 900 MHz frequencies. / Antenski ojačevalnik DIGI-LOG 15R-U ima vgrajen switch sistem in 4 sesalne filtre proti motnjam od TETRA 400 in GSM 900 MHz frekvenc.
- 5) Antenna amplifier DIGI-LOG 15RU L7 has built-in SWITCH system and LTE CUT filter LTE 700/800 LIGHT for cutting LTE 700/800 frequencies. / Antenski ojačevalnik DIGI-LOG 15RU L7 ima vgrajen SWITCH sistem in LTE sesalni filter LTE 700/800 LIGHT za dušenje LTE 700/800 signalov.

DIAGRAM OF AMPLIFICATION / GRAF OJAČANJA

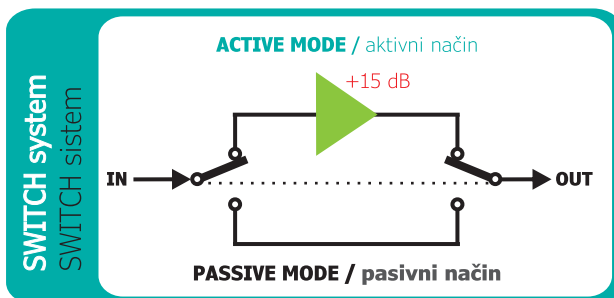


BUILT-IN ANTENNAS AMPLIFIERS FOR LOG ANTENNAS

VGRAJENI ANTENSKI OJAČEVALNIK ZA LOG ANTENE



HOW SYSTEM "SWITCH" WORKS KAKO DELUJE SISTEM "SWITCH"



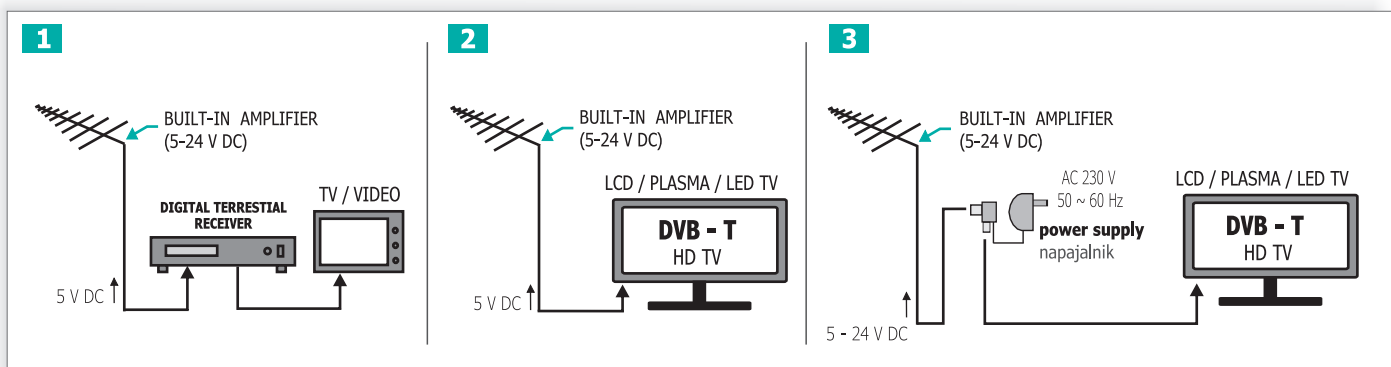
Example: Antenna P-20 G-SWITCH

1. LOW UHF signal: Switch ON power supply (5-24 V DC)
Gain = Antena + amplifier = 22.5 dB(i)
2. Strong UHF signal: Switch OFF power supply (don't need it)
Gain = Gain of antenna = 7.5 dB(i)

Primer: Antena P-20 G-SWITCH

1. Šibak UHF signal: Vključimo (ON) napajanje (enosm. 5-24 V DC)
Ojačanje = Antena + ojačevalnik = 22.5 dB(i)
2. Močan UHF signal: Izključimo (OFF) napajanje (napajanja ne potrebujemo)
Ojačanje = dobitek antene = 7.5 dB(i)

EXAMPLES OF CONNECTION PRIMER PRIKLJUCITVE



LTE FILTERS FOR LOG ANTENNAS

LTE FILTRI ZA LOG ANTENE

LTE filters are built-in inside antenna's aluminium carrier (in log-periodic antennas). We have several different LTE CUT filters:

- **LTE 800 LIGHT** - Filter passes all frequencies from 0 to 790 MHz and primary cuts signals above 790 MHz.
- **LTE 700/800 LIGHT** - Filter passes all frequencies from 0 to 697 MHz and primary cuts signals above 697 MHz.

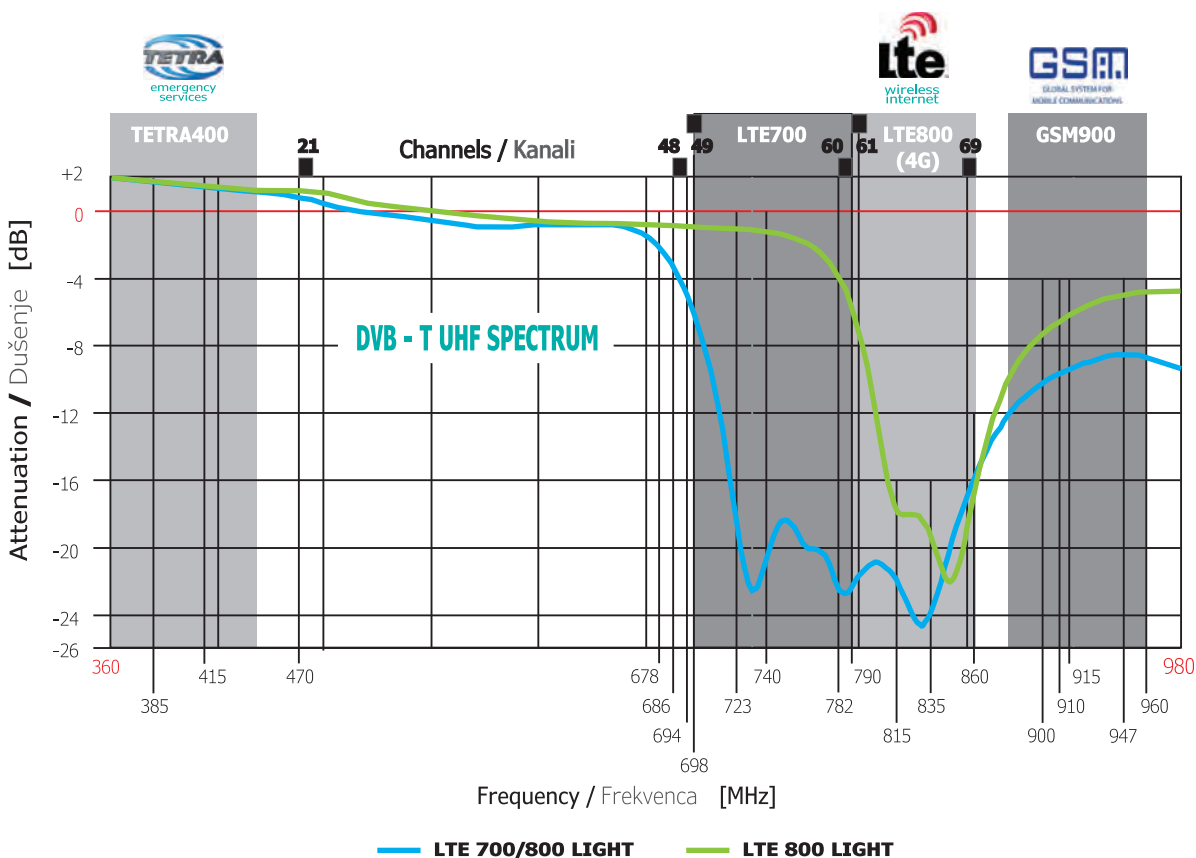
LTE filtri so vgrajeni v nosilec antene. Imamo več tipov LTE sesalnih filtrov:

- **LTE 800 LIGHT** - Spustijo vse frekvence 0 - 790 MHz in primarno zadušijo signale nad 790 MHz.
- **LTE 700/800 LIGHT** - Spustijo vse frekvence 0 - 697 MHz in primarno zadušijo signale nad 697 MHz.

TECHNICAL DATA / TEHNIČNI PODATKI

Type Tip	LTE 800 LIGHT	LTE 700/800 LIGHT
Function Funkcija	Attenuating LTE 800 signals / Dušenje LTE 800 signalov	Attenuating LTE 700 + LTE 800 signals / Dušenje LTE 700 + LTE 800 signalov
Cutting frequencies Dušenje frekvenc	791 - 862 MHz: - 20 dB	698 - 862 MHz: - 22 dB
Loss on channels Slabljenje na kanalih	- 3.5 dB @ Ch.59 - 6.2 dB @ Ch.60	- 2.3 dB @ Ch.48 - 4.5 dB @ Ch.49
Pass freq. range - internal loss Izguba na prep. pasu	0 - 790 MHz: <0.7 dB	0 - 697 MHz: <0.9 dB
Impedance / Connector Impedanca / Konektor	75 Ohm	"F" female / ženski "F"
Electro-static protection Elektrostatična zaščita		Yes Da
Additional mark in antenna - Eg. Dodatna oznaka pri anteni - Npr.	P-2845 FLT	P-2845 FLT7

DIAGRAM OF ATTENUATION / GRAF DUŠENJA



YAGI ANTENNAS

YAGI ANTENE

DESCRIPTIONS OF DIFFERENT VERSIONS OF LOG ANTENNAS OPIS RAZLIČNIH IZVEDB LOG ANTEN

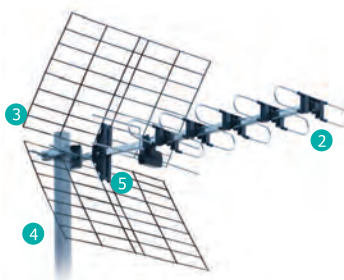
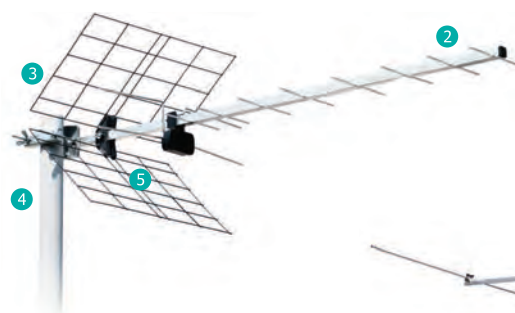
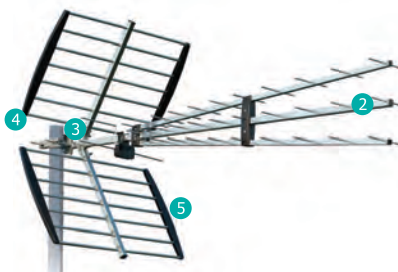
1 Antenna carriers / Nosilca antene
aluminium tube / aluminij cev
18x18x0.7 EN AW 3005 (AlMn1Mg0.5) H165

2 Antenna carriers / Nosilca antene
aluminium tube / aluminij cev
18x18x0.7 EN AW 3005 (AlMn1Mg0.5) H165

3 Iron parts / Kovinski deli
hot galvanized steel / vroče cinkano jeklo

4 Fixing to mast / Pritrditev antene na drog
Inclination 0-10°, horizontal or vertical polarization /
inklinacija 0-10°, horizontalna ali vertikalna polarizacija
for outside mast diameter / za zunanji premer droga
D = 20... 62 mm

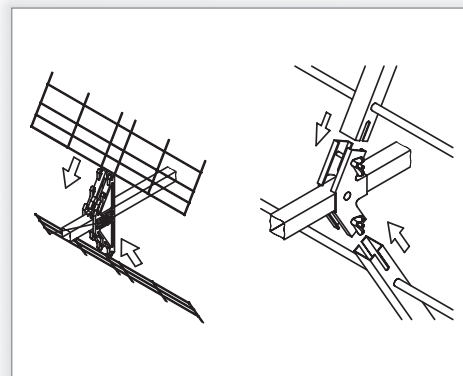
5 Plastics / Plastika
ABS UV resistant / ABS UV obstojna



REFLECTORS REFLEKTORJI

All reflectors are already factory-assembled. Each antenna's reflector is adjusted to achieve the best possible characteristics for the antenna. Reflector's installation on the antenna carrier is quick and easy without additional tools.

Vsi reflektorji so že tovarniško sestavljeni. Za vsako anteno so prilagojeni, da ima antena čimboljše lastnosti. Montaža na nosilec antene je hitra in enostavna brez dodatnega orodja.



YAGI ANTENNAS

YAGI ANTENE

DIPOLE DIPOL

Dipole is the heart of antenna. Therefore, each dipole of ISKRA antenna is designed for the best signal reception on its frequency band. YAGI antennas have mechanically 3 different dipoles:

Classic dipole with direct connection of coax. cable

Classic dipole with "F" female connector can have following baluns inside:

- passive balun for channels 21 - 69
- active balun with built-in amplifier DIGI-YAGI 20VD (see page 29)

DTX dipole with "F" female connector can have following baluns inside:

- passive balun for channels 21-69
- passive balun with LTE 800 LIGHT filter (for channels 21-60) (see page 32)
- passive balun with LTE 700/800 LIGHT filter (for channels 21-48) (see page 32)
- active balun with built-in amplifier DIGI-YAGI 16U (see page 30)
- active balun with built-in amplifier DIGI-YAGI 18U (see page 30)
- active balun with built-in amplifier DIGI-YAGI 18U L8 (DIGI-YAGI 18U with LTE cut filter LTE 800 LIGHT) (see page 30)
- active balun with built-in amplifier DIGI-YAGI 18U L7 (DIGI-YAGI 18U with LTE cut filter LTE 700/800 LIGHT) (see page 30)

Dipol je srce antene, zato ima vsaka ISKRA antena dipol natančno prilagojen za najboljši sprejem signalov v svojem frekvenčnem pasu. YAGI antene imajo mehansko 3 različne dipole:

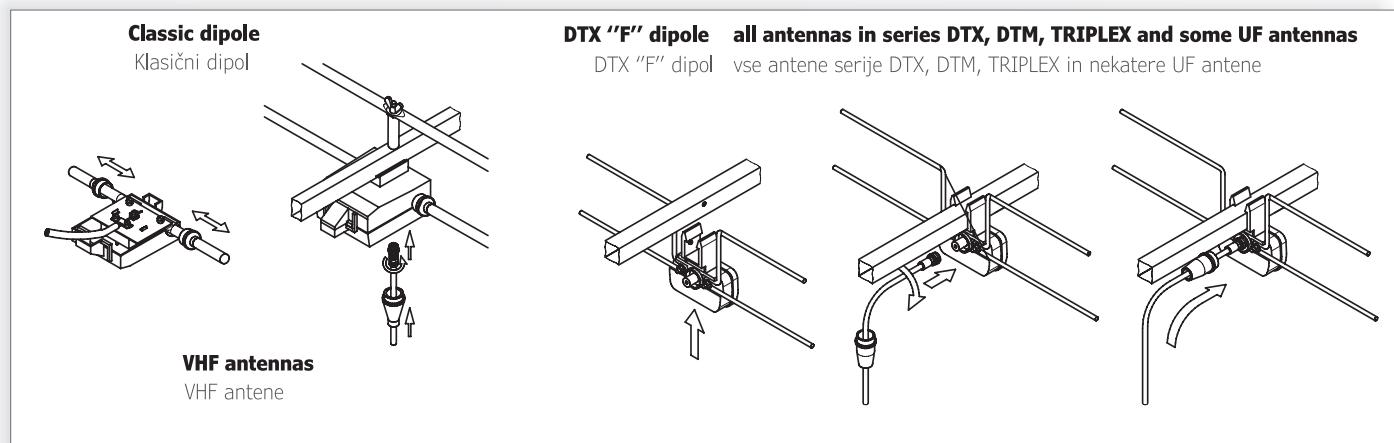
Klasični dipol z direktnim priklopom koaksialnega kabla

Klasični dipol z "F" ženskim konektorjem:

- pasivni sim. člen za kanale 21 - 69
- aktivni sim. člen z ojačevalnikom DIGI-YAGI 20VD (glejte stran 29)

DTX dipol z "F" ženskim konektorjem lahko vsebuje različne simetrične člene:

- pasivni sim. člen za kanale 21-69
- pasivni sim. člen z LTE 800 LIGHT sesalnim filtrom (za kanale 21-60) (glejte stran 32)
- pasivni sim. člen z LTE 700/800 LIGHT sesalnim filtrom (za kanale 21-48) (glejte stran 32)
- aktivni sim. člen z ojačevalnikom DIGI-YAGI 16U (glejte stran 30)
- aktivni sim. člen z ojačevalnikom DIGI-YAGI 18U (glejte stran 30)
- aktivni sim. člen z ojačevalnikom DIGI-YAGI 18U L8 (DIGI-YAGI 18U in LTE sesalnim filtrom LTE 800 LIGHT) (glejte stran 30)
- aktivni sim. člen z ojačevalnikom DIGI-YAGI 18U L7 (DIGI-YAGI 18U in LTE sesalnim filtrom LTE 700/800 LIGHT) (glejte stran 30)



DIRECTORS DIREKTORJI

Directors have different shapes, dimensions and are electrically specially designed for each antenna's type:

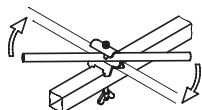
- **Channel and VHF antennas**
tubes dia. ϕ 10 mm, premounted, final mounting without any tools
- **DTX series antennas**
rods dia. ϕ 4 mm, final mounting without any tools
- **DTM series antennas**
tubes dia. ϕ 8 mm, fixed on antenna carrier, additional mounting is not necessary
- **TRIPLEX and UF series antennas**
rods dia. ϕ 4 mm, fixed on antenna carrier, additional mounting is not necessary

Direktorji so različnih izvedb, dimenzijsko in električno prilagojeni posameznemu tipu anten:

- **Kanalne in VHF antene**
cevke ϕ 10 mm, predmontirani, končno sestavljanje brez orodja
- Antene serije **DTX**
palice ϕ 4 mm, fkončno sestavljanje brez dodatnega orodja
- Antene serije **DTM**
cevke ϕ 8 mm, fiksne na nosilcu, dodatna montaža ni potrebna
- Antene **TRIPLEX in UF**
palice ϕ 4 mm, fiksne na nosilcu, dodatna montaža ni potrebna

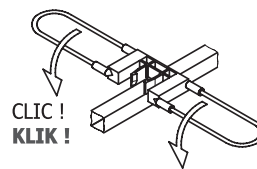
Channels and VHF antennas

Kanalne in VHF antene



Antennas series DTX

Antene serije DTX



YAGI ANTENNAS - VHF

YAGI ANTENE - VHF

VHF
Ch. 5-12 (174 - 230 MHz)



VF-6 F



VF-9 F

Impedance	75 Ohm	Channels	5-12	Polarization	Horiz./Vert.	Antenna carrier	18 x 18	Mounting on mast	D = 20-62 mm
Impedanca		Kanali	(174-230 MHz)	Polarizacija		Nosilec antene		Montaža na drog	

D - outside mast diameter /
zunanji premer droga

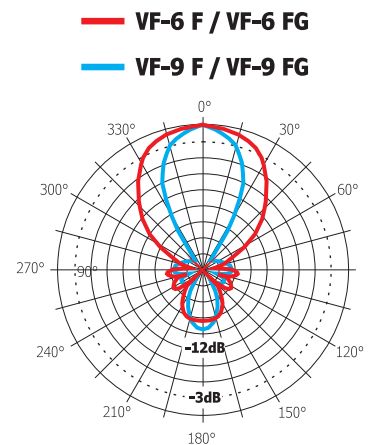
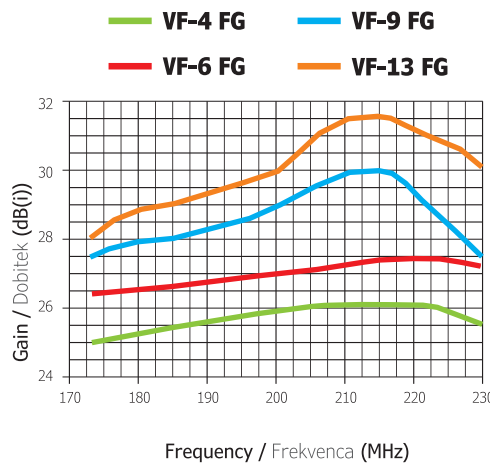
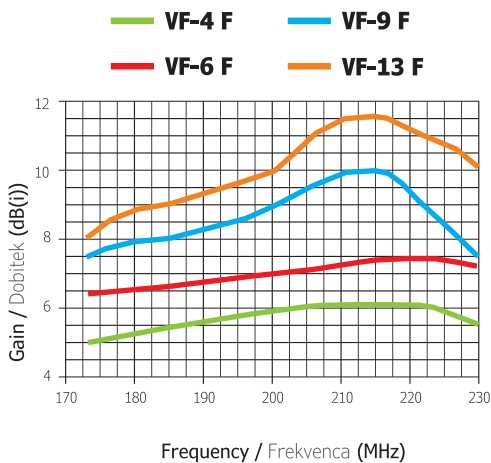
TECHNICAL DATA / TEHNIČNI PODATKI

Type Tip	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Lenght Dolžina antene	Packing Pakiranje		
						pcs.	cm	m ³
VF-4 F *	4	5 - 6 dB(i)	14 - 18 dB	Horiz. 65° Vert. 105°	67 cm	10	111 x 23 x 27	0,069
VF-4 FG **		25 - 26 dB(i)						
VF-6 F *	6	6 - 7,5 dB(i)	16 - 18 dB	Horiz. 58° Vert. 86°	122 cm	1	133 x 14 x 13,5	0,025
VF-6 FG **		26 - 27,5 dB(i)				5	162 x 28 x 17	0,077
						10	161 x 25 x 24	0,097
VF-9 F *	9	7 - 10 dB(i)	17 - 22 dB	Horiz. 50° Vert. 72°	154 cm	1	164 x 14 x 14	0,031
VF-9 FG **		27 - 30 dB(i)				5	168 x 28 x 17	0,080
						10	164 x 25 x 31	0,127
VF-13 F *	13	9 - 11,5 dB(i)	20 - 26 dB	Horiz. 46° Vert. 60°	208 cm	5	149 x 25 x 30	0,112
VF-13 FG **		29 - 31,5 dB(i)				10	144 x 34 x 30	0,145

* Passive antenna with "F" female connector / pasivna antena z "F" ženskim konektorjem

** Active antenna with active dipole (dipole with built-in amplifier) DIGI-YAGI 20 VD (see page 29), /
Aktivna antena z aktivnim dipolom (dipol z vgrajenim ojačevalnikom) DIGI-YAGI 20 VD (glejte stran 29).

DIAGRAMS OF GAINS / GRAFI DOBITKOV



YAGI ANTENNAS - SERIES DTX

YAGI ANTENE - SERIJA DTX

UHF
Ch. 21-69 (470 - 862 MHz)



DTX-22 F



DTX-48 FC



DTX-92 FC

Impedance	75 Ohm	Dipole	DTX	Polarization	Horiz./Vert.	Antenna carrier	18 x 18	Mounting on mast	D = 20-62 mm
Impedanca		Dipol	"F"	Polarizacija		Nosilec antene		Montaža na drog	

D - outside mast diameter /
zunanj premer droga

TECHNICAL DATA / TEHNIČNI PODATKI

Type Tip	Channels (frequency) Kanali (frekvenca)	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Reflector Reflektor	Lenght Dolžina antene	Packing Pakiranje		
								pcs.	cm	m ³
DTX-22 F		22	10 - 14 dB(i)	>28 dB	Horiz. 62°... 32°	Type 1 Tip 1	81 cm	10	88 x 37 x 29	0,094
DTX-22 FC						Type 2 Tip 2		10	96 x 41 x 47	0,183
DTX-48 F	B.IV-V 21-69 (470-862 MHz)	48	11- 16 dB(i)	>29 dB	Horiz. 54°... 26°	Type 1 Tip 1	111 cm	1	113 x 33x 6	0,022
DTX-48 FC						Type 2 Tip 2		5	117 x 37x 16	0,069
								10	117 x 37x 29	0,126
								10	117 x 41 x 40	0,190
DTX-92 F		92	12 - 18.5 dB(i)	>30 dB	Horiz. 50°... 26°	Type 1 Tip 1	237 cm	1	124 x 33 x 9	0,036
DTX-92 FC	Type 2 Tip 2					1		121 x 41 x 9	0,045	

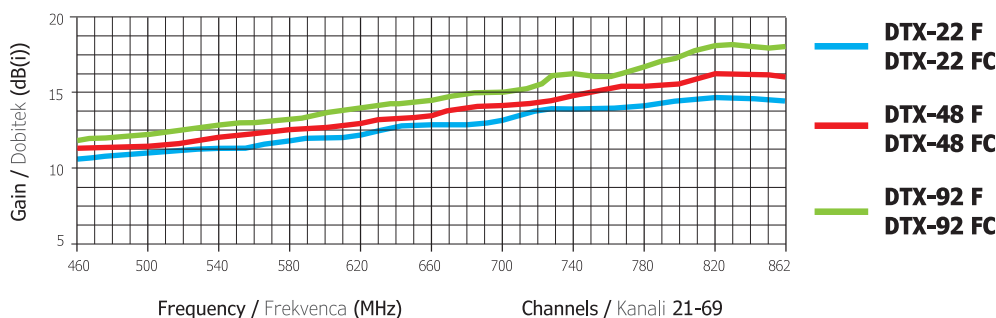
It is possible to order antenna with different DTX dipoles (see page 21) or upgrade existing antenna later:

- passive balun without LTE cut filter or with built-in LTE cut filter
- active balun (balun with built-in amplifier) without LTE cut filter or with built-in LTE cut filter

Možno je naročiti anteno z različnimi DTX dipoli (glejte stran 21) ali pa obsoječo anteno nadgraditi kasneje:

- pasivni simetrični člen brez LTE sesalnega filtra ali z vgrajenim LTE sesalnim filtrom
- aktivni simetrični člen (sim. člen z vgrajenim ojačevalnikom) brez LTE sesalnega filtra ali z vgrajenim sesalnim LTE filtrom

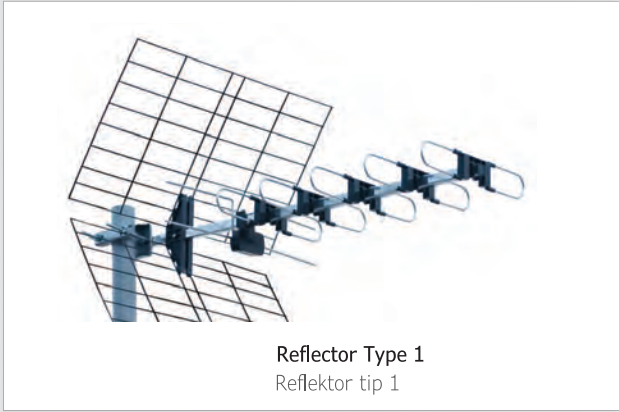
DIAGRAM OF GAINS / GRAF DOBITKOV



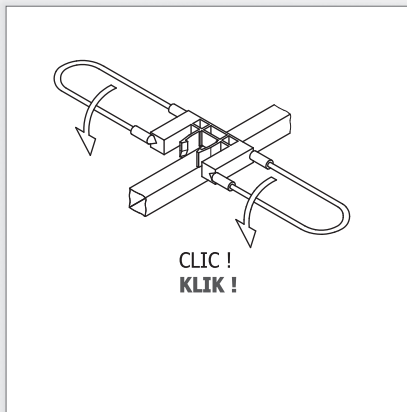
YAGI ANTENNAS - SERIES DTX

YAGI ANTENE - SERIJA DTX

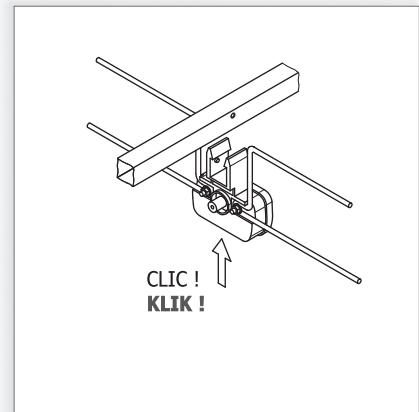
REFLECTOR / REFLEKTOR



DTX DIRECTORS / DTX DIREKTORJI



DIPOL / DIPOL



YAGI ANTENNAS - SERIES DTM

YAGI ANTENE - SERIJA DTM

UHF
Ch. 21-69 (470 - 862 MHz)



DTM-27 F



DTM-44 F



DTM-91 F

Impedance	75 Ohm	Dipole	DTX	Polarization	Horiz./Vert.	Antenna carrier	18 x 18	Mounting on mast	D = 20-62 mm
Impedanca		Dipol	"F"	Polarizacija		Nosilec antene		Montaža na drog	

D - outside mast diameter /
zunanji premer droga

TECHNICAL DATA / TEHNIČNI PODATKI

Type Tip	Channels (frequency) Kanali (frekvenca)	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Reflector Reflektor	Lenght Dolžina antene	Packing Pakiranje		
								pcs. kos	cm	m ³
DTM-27 F	Ch. 21-69 (470-862 MHz)	27	10 - 14 dB(i)	>26 dB	Horiz. 42° Vert. 54°	Type 1 Tip 1	103.5 cm	1	105 x 40,5 x 11,5	0,049
								5	108 x 45 x 29	0,141
								10	108 x 42 x 46	0,209
DTM-40-7 MF **	Ch. 21-48 (470-694 MHz)	40	11,5 - 16 dB(i)	27 dB	Horiz. 38° Vert. 52°	Type 3 Tip 3	118 cm	10	120 x 47 x 45	0,254
DTM-40-7 CF **										
DTM-44 F	Ch. 21-69 (470-862 MHz)	44	11 - 15 dB(i)	>27 dB	Horiz. 34° Vert. 48°	Type 2 Tip 2	126.5 cm	1	128 x 40,5 x 11,5	0,060
								5	131 x 41 x 29	0,156
								10	131 x 41 x 46	0,247
DTM-91 F	Ch. 21-69 (470-862 MHz)	91	12 - 18 dB(i)	>30 dB	Horiz. 28° Vert. 38°		189.5 cm	1	114 x 40,5 x 9,5	0,044

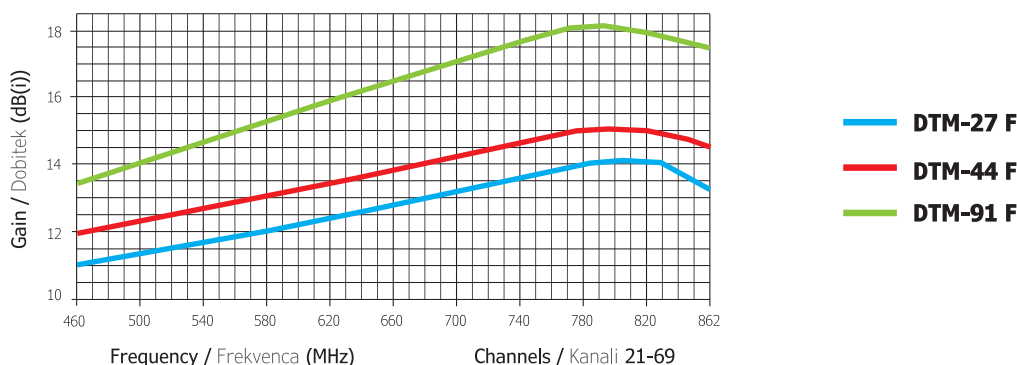
It is possible to order antenna with different DTX dipoles (see page 21) or upgrade existing antenna later:

- passive balun without LTE cut filter or with built-in LTE cut filter
- active balun (balun with built-in amplifier) without LTE cut filter or with built-in LTE cut filter

Možno je naročiti anteno z različnimi DTX dipoli (glejte stran 21) ali pa obsoječo anteno nadgraditi kasneje:

- pasivni simetrični člen brez LTE sesalnega filtra ali z vgrajenim LTE sesalnim filtrom
- aktivni simetrični člen (sim. člen z vgrajenim ojačevalnikom) brez LTE sesalnega filtra ali z vgrajenim sesalnim LTE filtrom

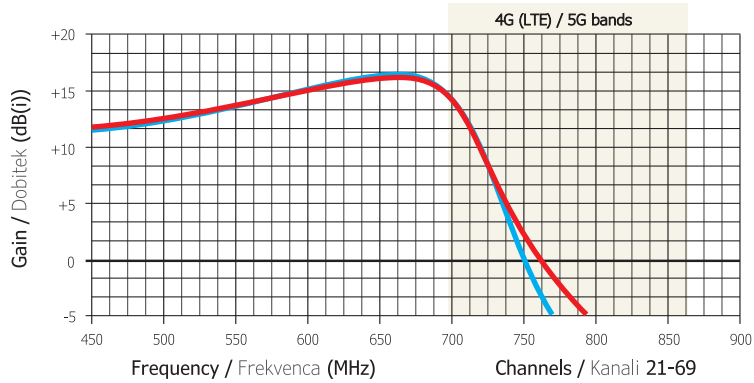
DIAGRAM OF GAINS / GRAF DOBITKOV



YAGI ANTENNAS - SERIES DTM

YAGI ANTENE - SERIJA DTM

DIAGRAM OF GAINS / GRAF DOBITKOV



— DTM-40-7 MF
— DTM-40-7 CF

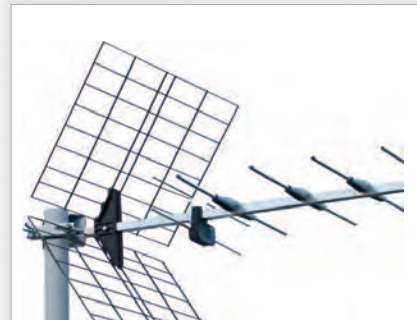
REFLECTOR / REFLEKTOR



Reflector Type 1
Reflektor tip 1



Reflector Type 2
Reflektor tip 2

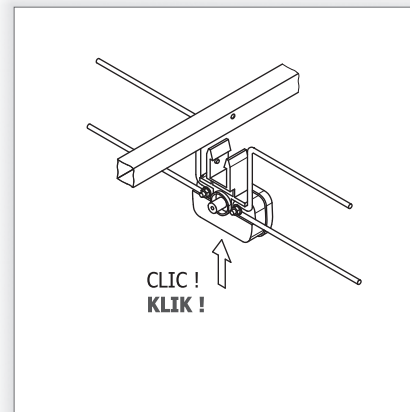


Reflector Type 3
Reflektor tip 3

DTM DIRECTORS / DTM DIREKTORJI



DIPOL / DIPOL



YAGI ANTENNAS

YAGI ANTENE

UHF
Ch. 21-69 (470 - 862 MHz)



P-43 N TRIPLEX



P-47 N TRIPLEX



UF-13 F45N

Impedance Impedanca	75 Ohm	Polarization Polarizacija	Horiz./Vert.	Mounting on mast Montaža na drog	D = 20-62 mm
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D - outside mast diameter /
zunanjí premer droga

TECHNICAL DATA / TEHNIČNI PODATKI

Type Tip	Channels (frequency) Kanali (frekvenca)	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Antenna carrier Nosilec antene	Reflector Reflektor	Length Dolžina antene	Packing Pakiranje		
									pcs. kos	cm	m ³
P-41-7 TRIPLEX MF **	Ch. 21-48 (470-694 MHz)	41	11,5 - 17 dB(i)	28 dB	Horiz. 32° Vert. 35°		Type 2 Tip 2	118 cm	5	120 x 36 x 21	0,091
P-41-7 TRIPLEX CF **										120 x 41 x 26	0,128
P-42 TRIPLEX	Ch. 21-60 (470-790 MHz)	42	12 - 15 dB(i)	27 dB	Horiz. 52° Vert. 38°	1x 18 x 18 2x 14 x 14	Type 3 Tip 3	92 cm	5 10	108 x 41 x 27 116 x 41 x 48	0,120 0,228
P-43 N TRIPLEX		43	9,5 - 15 dB(i)	28 dB	Horiz. 32° Vert. 35°		Type 2 Tip 2	119 cm	1* 10	120 x 32 x 8 121 x 33 x 30	0,029 0,118
P-47 N TRIPLEX	Ch. 21-69 (470-862 MHz)	47	11 - 17 dB(i)	>28 dB	Horiz. 45° Vert. 24°		Type 3 Tip 3	128,5 cm	1 5	127,5 x 40,5 x 9,5 129 x 41 x 28	0,049 0,148
UF-13 F45N		13	7,5 - 11 dB(i)	20 dB	Horiz. 50° Vert. 56°	18 x 18	Type 1 Tip 1	101 cm	1* 10	102 x 23 x 8 111 x 34 x 27	0,018 0,102

It is possible to order antenna with different DTX dipoles (see page 21) or upgrade existing antenna later:

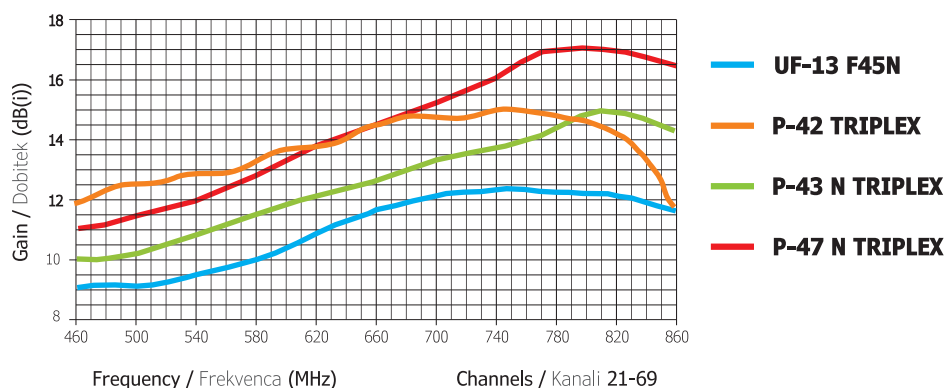
- passive balun without LTE cut filter or with built-in LTE cut filter
- active balun (balun with built-in amplifier) without LTE cut filter or with built-in LTE cut filter

Možno je naročiti anteno z različnimi DTX dipoli (glejte stran 21) ali pa obsoječo anteno nadgraditi kasneje:

- pasivni simetrični člen brez LTE sesalnega filtra ali z vgrajenim LTE sesalnim filtrom
- aktivni simetrični člen (sim. člen z vgrajenim ojačevalnikom) brez LTE sesalnega filtra ali z vgrajenim sesalnim LTE filtrom

* Single carton box with print / Posamična potiskana embalaža

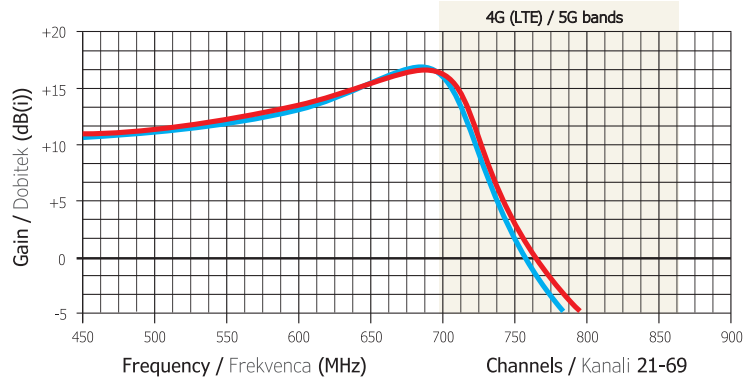
DIAGRAM OF GAINS / GRAF DOBITKOV



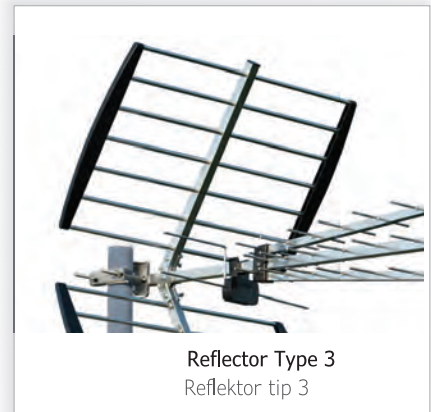
YAGI ANTENNAS

YAGI ANTENE

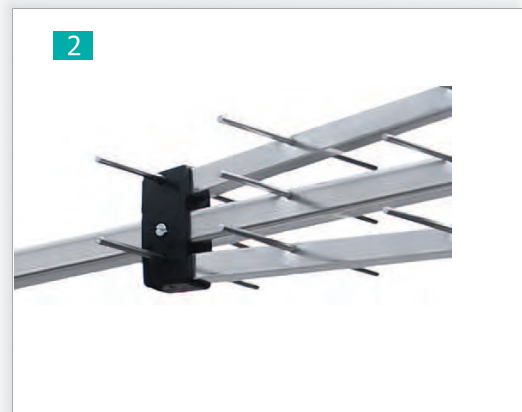
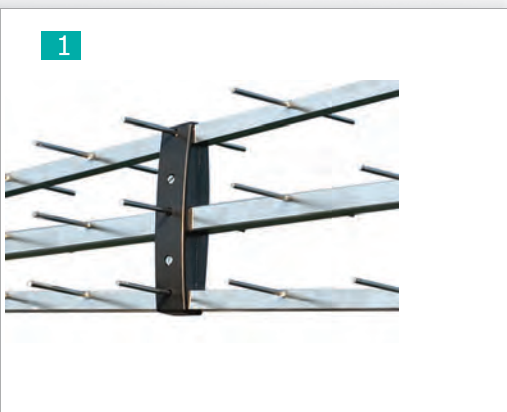
DIAGRAM OF GAINS / GRAF DOBITKOV



REFLECTOR / REFLEKTOR



TRIPLEX DETAIL / TRIPLEX DETAJL



ANTENNA AMPLIFIERS FOR YAGI ANTENNAS

ANTENSKI OJAČEVALNIKI ZA YAGI ANTENE

Low noise antenna amplifier DIGI YAGI 20VD is made as single active balun. It is used only for YAGI antenna with classic dipole on RADIO DAB+ antennas (page 7) or YAGI VHF antennas (page 22). It can be used for upgrading existing antenna too. Amplifier can be supplied from outside power supply* or directly from DVB-T receiver. Antenna is receiving signals only if balun is power supplied. Antenna is receiving signals only if balun is power supplied. Power supply is provided through the same coax. cable as reception signal.

Nizkošumni antenski ojačevalnik DIGI YAGI 20VD je narejen kot samostojni aktivni simetrični člen. Uporablja se le pri YAGI anteni s klasičnim dipolom, pri radijski DAB+ anteni (stran 7) ali YAGI-VHF anteni (stran 22). Uporablja se lahko tudi za naknadno vgradnjo v obstoječo anteno. Napaja se z zunanjim napajalnikom* ali direktno z digitalnim DVB-T sprejemnikom. Antena sprejema signale samo če je simetrični člen napajan z električno energijo. Napajanje poteka preko istega koaks. kabla kot je prenos sprejetega signala.

TECHNICAL DATA / TEHNIČNI PODATKI

Amplifier type Tip ojačevalnika	Frequency range Frekvenčni pas	Amplification Ojačanje	Cutting freq. (notch filter) Dušenje frekv. (sesalni filter)	Noise figure Šumno št.	Power supply Napajanje	Electro-static protection Elektrostatična zaščita	Impedance / Connector Impedanca / konektor
DIGI-YAGI 20VD	Ch.5 - 12 & DAB+ 170 - 240 MHz	170 - 240 MHz + 20 dB	140 - 150 MHz - 28 dB	2 dB	25 mA 5 - 24 V DC	YES DA	75 Ohm "F" female "F" ženski

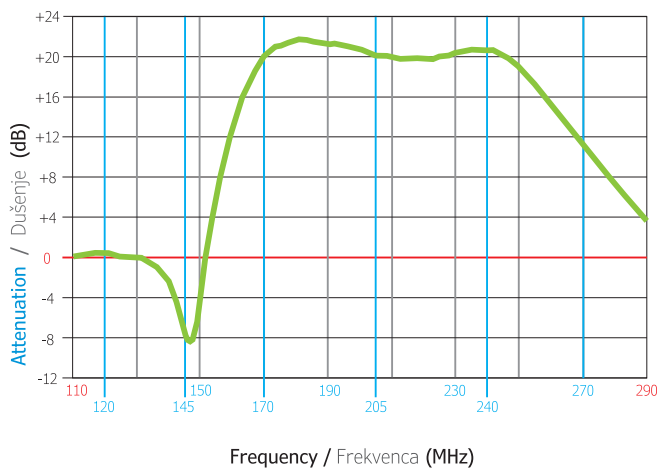
* Recommended power supply with output DC 12 V, 150 mA (see page 45). / Priporočamo napajalnik z izhodom enosm. 12V, 150 mA (glejte stran 45).

Additional mark in antenna = Eg.
Dodatna oznaka pri anteni - Npr.

DIGI-YAGI 20VD

VF - 9 FG

DIAGRAM OF AMPLIFICATION / GRAF OJAČANJA



DIGI-YAGI 20VD

ANTENNA AMPLIFIERS FOR YAGI ANTENNAS

ANTENSKI OJAČEVALNIKI ZA YAGI ANTENE

Low noise antenna amplifier DIGI YAGI is made as single active balun. It is used only for YAGI antenna with DTX "F" dipole (all antennas in series DTX, DTM, TRIPLEX and some UF antennas). It can be used for upgrading existing antenna. Amplifier can be supplied from outside power supply* or directly from DVB-T receiver. Antenna is receiving signals only if balun is power supplied. Power supply is provided through the same coax. cable as reception signal.

Nizkošumni antenski ojačevalnik DIGI YAGI je narejen kot samostojni aktivni simetrični člen. Uporablja se le pri YAGI anteni, ki ima DTX "F" dipol (vse antene serije DTX, DTM, TRIPLEX in nekatere UF antene). Uporablja se za naknadno vgradnjo v obstoječo anteno. Napaja se z zunanjim napajalnikom* ali direktno z digitalnim sprejemnikom. Antena sprejema signale samo če je simetrični člen napajan z električno energijo. Napajanje poteka preko istega koaks. kabla kot je prenos sprejetega signala.

TECHNICAL DATA / TEHNIČNI PODATKI

Amplifier type Tip ojačevalnika	Frequency range Frekvenčni pas	Amplification Ojačanje	Cutting frequencies Dušenje frekvenc	Noise figure Šumno št.	P-P Valovanje	Maks. output level Maks. jakost izhod. signala	Power supply Napajanje	Impedance Connector Impedanca konektor
DIGI-YAGI 16U ¹⁾ (3 NOTCH filters)	Ch. 21 - 69 470 - 862 MHz	16 dB	350 - 460 MHz: - 22 dB 890 - 960 MHz: - 20 dB		1.8 dB	98 dBμV		
DIGI-YAGI 18-U			-	2 dB			25 mA 5 - 24 V DC	75 Ohm "F" female "F" ženski
DIGI-YAGI 18U L8 ²⁾ (filter LTE 800 LIGHT)	Ch. 21 - 60 470 - 790 MHz	18 dB	791 - 861 MHz: - 20 dB		1.4 dB	96 dBμV		
DIGI-YAGI 18U L7 ³⁾ (filter LTE 700/800 LIGHT)	Ch. 21 - 48 470 - 694 MHz		698 - 862 MHz: - 22 dB					

* Recommended power supply with output DC 12 V, 150 mA / Priporočamo napajalnik z izhodom enosm. 12V, 150 mA

- 1) Antenna amplifier DIGI-YAGI 16U has built-in 3 NOTCH (stop band) filters for TETRA 400 and GSM 900 MHz and 1.1 GHz frequencies / Antenski ojačevalnik DIGI-YAGI 16U ima vgrajene 3 sesalne filtre proti motnjam TETRA 400 in GSM 900 MHz in 1.1 GHz frekvenc
- 2) Antenna amplifier DIGI-YAGI 18U L8 has built-in LTE CUT filter LTE 800 LIGHT for cutting LTE 800 frequencies 791-862 MHz / Antenski ojačevalnik DIGI-YAGI 18U L8 ima vgrajen LTE sesalni filter LTE 800 LIGHT za dušenje LTE 800 signalov 791-862 MHz
- 3) Antenna amplifier DIGI-YAGI 18U L7 has built-in LTE CUT filter LTE 700/800 LIGHT for cutting LTE 700/800 frequencies 698-862 MHz / Antenski ojačevalnik DIGI-YAGI 18U L7 ima vgrajen LTE sesalni filter LTE 700/800 LIGHT za dušenje LTE 700/800 signalov 698-862 MHz

Additional mark in antenna = Eg.
Dodatna oznaka pri anteni - Npr.

DIGI-YAGI 16U ¹⁾

DIGI-YAGI 18U

DIGI-YAGI 18U L8 ²⁾

DIGI-YAGI 18U L7 ³⁾

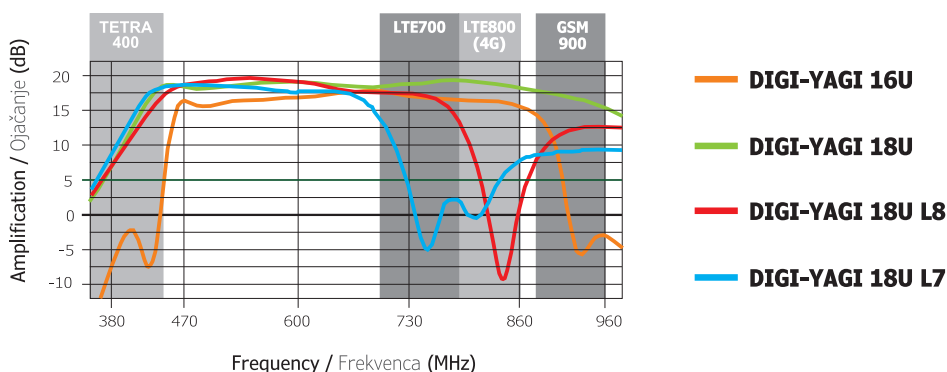
DTX - 48 FGN

DTX - 48 FG

DTX - 48 GLT

DTX - 48 GLT7

DIAGRAM OF AMPLIFICATION / GRAF OJAČANJA



ANTENNA AMPLIFIERS FOR YAGI ANTENNAS

ANTENSKI OJAČEVALNIKI ZA YAGI ANTENE

GAIN = gain of passive antenna + amplification of DIGI-YAGI

Dobitek = dobitek pasivne antene + ojačanje DIGI-YAGI

Example / Primer:

antenna / antena
DTX-48 F
16 dB(i)

+

antenna amplifier /
antenski ojačevalnik
DIGI YAGI 16U
16 dB

=

active antenna /
aktivna antena
DTX-48 FG
32 dB(i)

EXAMPLES OF USE / PRIMERI UPORABE

1st option / Prva opcija

Independent amplifier DIGI-YAGI

DTX "F" dipole's housing has to be opened and afterwards the existing passive balun has to be replaced by DIGI-YAGI amplifier. Tools are required for this intervention.

Samostojni ojačevalnik DIGI-YAGI

Plastično ohišje DTX "F" dipola je potrebno odpreti in zamenjati obstoječi pasivni simetrični člen z ojačevalnikom DIGI-YAGI. Za ta poseg je potrebno orodje.



2nd option / Druga opcija

Complete active DTX "F" dipole

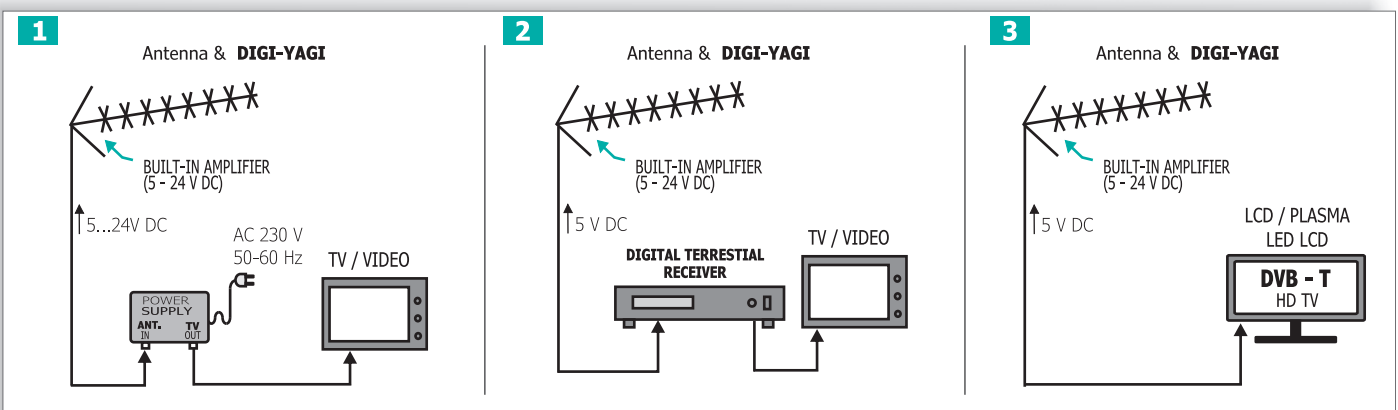
Amplifier DIGI-YAGI is already installed inside DTX "F" dipole. It is necessary to replace the existing passive DTX "F" dipole with an active DTX "F" dipole. Tools aren't required.

Kompleten aktivni DTX "F" dipol

Ojačevalnik DIGI-YAGI je že vgrajen v DTX "F" dipolu. Potrebno le zamenjati obstoječi pasivni DTX "F" dipol z tem aktivnim DTX "F" dipolom. Orodje ni potrebno.



EXAMPLES OF CONNECTION / PRIMERI PRIKLJUČITVE



LTE FILTERS FOR YAGI ANTENNAS

LTE FILTRI ZA YAGI ANTENE

LTE filters are built-in into balun. We have several different LTE CUT filters:

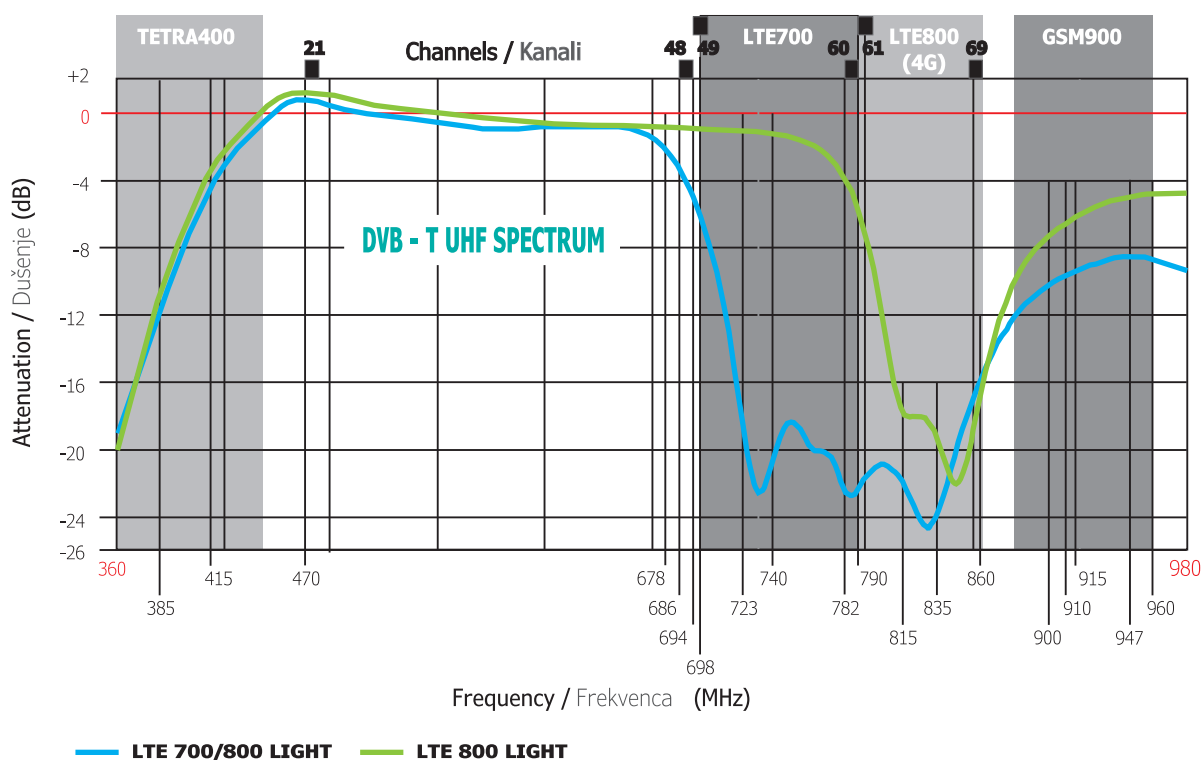
- **LTE 800 LIGHT** - Filter passes all frequencies from 470 to 790 MHz and primary cuts signals above 790 MHz.
- **LTE 700/800 LIGHT** - Filter passes all frequencies from 470 to 697 MHz and primary cuts signals above 697 MHz.

LTE filtri so vgrajeni v simetrični člen. Imamo več tipov LTE sesalnih filtrov:

- **LTE 800 LIGHT** - Spustijo vse frekvence 470 - 790 MHz in primarno zadušijo signale nad 790 MHz.
- **LTE 700/800 LIGHT** - Spustijo vse frekvence 470 - 697 MHz in primarno zadušijo signale nad 697 MHz.

TECHNICAL DATA / TEHNIČNI PODATKI		
Type / Tip	LTE 800 LIGHT	LTE 700/800 LIGHT
Function / Funkcija	Attenuating LTE 800 signals / Dušenje LTE 800 signalov	Attenuating LTE 700 + LTE 800 signals / Dušenje LTE 700 + LTE 800 signalov
Cutting frequencies / Dušenje frekvenc	791 - 862 MHz: - 20 dB	698 - 862 MHz: - 22 dB
Loss on Channels. / Slabljenje na kanalih	- 3,5 dB @ Ch.59 - 6,2 dB @ Ch.60	- 2,3 dB @ Ch.48 - 4,5 dB @ Ch.49
Pass freq. range - internal loss / Izguba na prep. pasu	470 - 790 MHz: <0,7 dB	470 - 695 MHz: <0,9 dB
Impedance / Impedanca	75 Ohm	
Connector / Konektor	"F" - female / "F" - ženski	
Electro-static protection / Elektrostatična zaščita	Yes / Da	
Additional mark in antenna - Eg. / Dodatna oznaka pri anteni - Npr.	DTX-22 FLT	DTX-22 FLT7

DIAGRAM OF ATTENUATION / GRAF DUŠENJA



ANTENNA AMPLIFIERS AND FILTERS - SUMMARY

ANTENSKI OJAČEVALNIKI IN FILTRI - SKUPNO

ANTENNA AMPLIFIERS / ANTENSKI OJAČEVALNIKI

TECHNICAL DATA / TEHNIČNI PODATKI

Amplifier type Tip ojačevalnika	Frequency range Frekvenčni pas	Amplification Ojačanje	Cutting freq. (notch filter) Dušenje frekv. (sesalni filter)	Noise figure Šumno število	Additional mark in antenna - Eg. Dodatna oznaka pri anteni - primer	Power supply Napajanje	Use in antennas Uporaba v antelah	Additional info Dodatne informacije
DIGI-LOG 14U	Ch. 5 - 69 174 - 862 MHz		-		P-2845 DTT/G		LOG - VHF/UHF	
DIGI-LOG 14VU L8 (filter LTE 800 LIGHT)	Ch. 5 - 60 174 - 790 MHz	16 dB	791 - 862 MHz: - 20 dB		P-2845 GLT	25 mA 5 - 24 V DC		
DIGI-LOG 14VU L7 * (filter LTE 700/800 LIGHT)	Ch. 5 - 48 174 - 694 MHz		698 - 862 MHz: - 20 dB		P-2845 GLT7			page/ stran 17
DIGI-LOG 15R-U (NOTCH filters)	Ch. 21 - 69 470 - 862 MHz		350 - 460 MHz: - 26 dB 890 - 960 MHz: - 24 dB		P-2845 G-SWITCH		LOG - UHF	
DIGI-LOG 15RU L7 * (filter LTE 700/800)	Ch. 21 - 48 470 - 694 MHz	15 dB	698 - 8670 MHz: - 22 dB		P-2845 G-SWITCH L7	83 mA 5 - 24 V DC		
DIGI-YAGI 16-U (NOTCH filters)	Ch. 21 - 69 470 - 862 MHz	16 dB	350 - 460 MHz: - 22 dB 890 - 960 MHz: - 20 dB	2 dB	DTX-48 FGN			
DIGI-YAGI 18U			-		DTX-48 FG		YAGI - UHF	page/ stran 30
DIGI-YAGI 18U L8 (filter LTE 800 LIGHT)	Ch. 21 - 60 470 - 790 MHz	18 dB	791 - 862 MHz: - 20 dB		DTX-48 GLT	25 mA 5 - 24 V DC		
DIGI-YAGI 18U L7 (filter LTE 700/800 LIGHT)	Ch. 21 - 48 470 - 694 MHz		698 - 862 MHz: - 22 dB		DTX-48 GLT7			
DIGI-YAGI 20VD (NOTCH filters)	Ch. 5 - 12 + DAB 170 - 240 MHz	20 dB	140 - 150 MHz: - 28 dB		VF-9 FG		YAGI - VHF Radio DAB+	page/ stran 29

ANTENNA FILTERS / ANTENSKI FILTRI

TECHNICAL DATA / TEHNIČNI PODATKI

Filter type Tip filtra	Cutting frequencies Dušenje frekvenc	Loss on Channels Slabljenje na kanalih	Pass freq. range - internal loss Izguba na prep. pasu	Additional mark in antenna - Eg. Dodatna oznaka pri anteni - primer	Use in antennas Uporaba v antelah	Additional info Dodatne informacije
LTE 800 LIGHT	791 - 862 MHz - 20 dB	-3.5 dB @ Ch.59 -6.2 dB @ Ch.60	0 - 790 MHz < 0,7 dB	P-2845 FLT	LOG - VHF/UHF	page / stran 19
LTE 700/800 LIGHT	698 - 862 MHz - 22 dB	-2.3 dB @ Ch.48 -4.5 dB @ Ch.49	0 - 697 MHz < 0,9 dB	P-2845 FLT7		
LTE 800 LIGHT	791 - 862 MHz - 20 dB	-3.5 dB @ Ch.59 -6.2 dB @ Ch.60	470 - 790 MHz < 0,7 dB	DTX-48 FLT	YAGI - UHF	page / stran 32
LTE 700/800 LIGHT	698 - 862 MHz - 22 dB	-2.3 dB @ Ch.48 -4.5 dB @ Ch.49	470 - 697 MHz < 0,9 dB	DTX-48 FLT7		
LTE 800 HQ BASIC (with HQ SAW cut filters)	791 - 862 MHz - 30 dB	-2.1 dB @ Ch.59 -3.5 dB @ Ch.60	470 - 697 MHz < 1,2 dB	DTX-48 FL	YAGI - UHF	on demand / na zahtevo
LTE 800 HQ PLUS * (with HQ SAW cut filters)	791 - 862 MHz - 35 dB			DTX-48 FL+		

* LTE 800 HQ PLUS filter has additional notch / cut filters for TETRA 400 and GSM 900 frequencies.
LTE 800 HQ PLUS ima dodatne sesalne filtre za TETRA 400 in GSM 900 frekvence.

INDOOR ANTENNAS

SOBNE ANTENE

FM (88 - 108 MHz)
 DAB+ (170 - 240 MHz)
 VHF Ch. 2-12 (40 - 240 MHz)
 UHF Ch. 21-60 (470 - 790 MHz)



G-2235-06



G-2235-07



G-2235-10

Impedance
 Impedanca 75 Ohm

Power supply
 Napajanje AC 230 V / 50 Hz

Connector for connection on TV set
 Konektor za priklop na TV IEC 169-2 male / moški

TECHNICAL DATA / TEHNIČNI PODATKI

Type Tip	Channels (frequency) Kanali (frekvenca)	Common gain Skupni dobitek	Gain control Kontrola dobitka	Packing Pakiranje		
				pcs. kos	cm	m ³
G-2235-06		Ch. 2-12 (47 - 240 MHz): 20 dB Ch. 21-60 (470 - 790 MHz): max. 36 dB	VHF 15 dB UHF 25 dB	1* 10**	23 x 13,5 x 27 70 x 47 x 29	0,008 0,095
G-2235-07 ***	88 - 108 MHz (FM radio) 170 - 240 MHz (DAB+ radio) Ch. 2-12 (40 - 240 MHz) (VHF I - III band) Ch. 21-60 (470 - 790 MHz) (UHF IV - V band)	Ch. 2-12 (47 - 240 MHz): 26 dB Ch. 21-60 (470 - 790 MHz): max. 36 dB	VHF 15 dB UHF 25 dB	1* 10**	29 x 13 x 35 72 x 65 x 36	0,013 0,168
G-2235-10		Ch. 2-12 (47 - 240 MHz): 20 dB Ch. 21-60 (470 - 790 MHz): 25 dB	20 dB	1* 10**	20,5 x 6,5 x 23 34 x 35 x 48	0,003 0,057

All indoor antennas have built-in LTE-800 filter.
 Vse sobne antene imajo vgrajen LTE-800 filter.

All indoor antennas are DVB-T2 and DAB+ compatible.
 Vse sobne antene so DVB-T2 in DAB+ kompatibilne.

* Gift box /
 Posamična potiskana embalaža

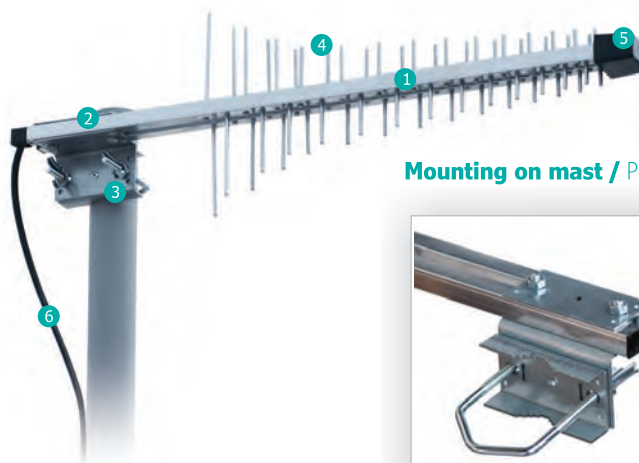
** Transport box for 10 gift boxes /
 Transportna embalaža za 10 anten.

*** Antenna G-2235-07 can operate with directly connected to an external DC 12V source (car, boat, caravan etc.) too.
 Anteno G-2235-07 lahko priključimo na direktni izvir 12V enosmernega toka (avto, plovilo, karavan prikolica, itd.).

MOBILE NETWORK ANTENNAS

ANTENE ZA MOBILNA OMREŽJA

- 1 Antenna carriers / Nosilca antene
Aluminium tube / aluminijasta cev
- 2 Iron parts / Kovinski deli
hot galvanized steel / vroče cinkano jeklo
- 3 Fixing to mast / Pritrditev antene na drog
"U" screw M6, without inclination
"U" vijak M6, brez inklinacije
- 4 Directors / Direktorji
aluminium rods / palice iz aluminija
dia. ϕ 4 mm
- 5 Plastics / Plastika
ABS UV resistant / ABS UV obstojna
- 6 Coaxial cable with connector at the end of the cable /
Koaksialni kabel z konektorjem na koncu kabla



Mounting on mast / Pritrditev na drog



Vertical version:

only for vertical polarisation
for outside mast diameter $D = 20 \dots 54$ mm

Vertikalna izvedba:
samo za vertikalno polarizacijo
za zunanji premer droga $D = 20 \dots 54$ mm



H/V version:

for vertical or horizontal polarisation
for outside mast diameter $D = 20 \dots 57$ mm

H/V izvedba:
za vertikalno ali horizontalno polarizacijo
za zunanji premer droga $D = 20 \dots 57$ mm

Standard coax. cable length is 10 m. It is possible to order antenna with different coax. cable length and different connector: SMA, FME, N ...

Standardna dolžina koaks. kabla je 10 m. Lahko naročite anteno z drugo dolžino koaks. kabla in konektorjem SMA, FME, N ...



FME female

FME ženski

SMA male connector

SMA moški konektor

Mobile network antenna is used primarily for the reception of 2G/3G/4G/5G mobile operator's signals in areas where mobile communication is impossible due to low signal level. The antenna is connected via connector directly on the mobile phone or on the card for wireless internet (e.g. 3G/4G USB modem or LTE Wi-Fi router). Additional adapter for connecting antenna to your 3G/4G modem is probably required.

Some mobile network antennas are used for wireless LAN signal transmission. Brand new mobile network antennas cover the entire freq. range from LTE 700 to LTE 5G 3,8 GHz (698 to 3800 MHz).

Mobile network antenna has reliable and robust design for optimal performance and long life time expectancy. Antenna does not require additional assembling, because it's already assembled.

Impedance of all mobile network antennas is 50 Ohm. Maximum connecting power of all mobile network antenna antennas is 50 Watt.

The gain of the antenna is measured without taking cable losses into account

Antena za mobilna omrežja se uporablja predvsem za sprejem 2G/3G/4G/5G signala mobilnih operaterjev na področjih, kjer je uporaba mobilnega aparata nemogoča zaradi prenizkega nivoja signala. Antena se priklopi preko vgrajenega konektorja direktno na mobilni aparat ali na kartico za brezžični internet (npr. 3G/4G USB modem ali na LTE Wi-Fi usmerjevalnik). Za prikllop antene na modem boste verjetno potrebovali še dodatni adapter.

Nekatere antene za mobilna omrežja se uporabljajo tudi za prenos brezžičnega LAN signala. Najnoveše antene za mobilna omrežja pokrivajo celoten frekvenčni pas od LTE 700 do LTE 5G 3,8 GHz (od 698 do 3800 MHz).

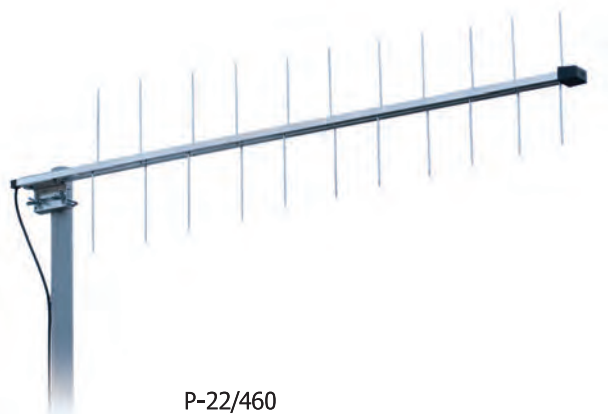
Antena za mobilna omrežja ima zanesljiv in robusten dizajn za optimalno delovanje in dolgo življenjsko dobo. Antene ni potrebno sestavljati pred montažo na drog, saj so vsi sprejemni deli že mehansko sestavljeni.

Impedanca vseh anten za mobilna omrežja je 50 Ohm. Največja priključna moč vseh anten za mobilna omrežja je 50 W.

Dobitek antene je pomejen brez upoštevanje izgub kabla.

MOBILE NETWORK ANTENNAS - TETRA400, GSM

ANTENE ZA MOBILNA OMREŽJA - TETRA400, GSM



P-22/460



P-28 TETRA400/GSM

TECHNICAL DATA / TEHNIČNI PODATKI

Type Tip	Channels (frequency) Kanali (frekvenca)	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Max. VSWR Maks. VSWR	Length Dolžina antene	Packing Pakiranje		
								pcs. kos	cm	m ³
P-18 TETRA400	TETRA400 (340 - 500 MHz)	18	10 dB(i)	21 dB	Horiz. 80° Vert. 60°	<1.5 : 1	97,5 cm	10	100 x 78,5 x 1	0.133
P-6/450 **	TETRA400 (400 - 470 MHz)	6	6,5 dB(i)	22 dB	Horiz. 88° Vert. 66°	1.3 : 1	35 cm	10		
P-8/460	TETRA400 (450 - 470 MHz)	8	8 dB(i)	23 dB	Horiz. 84° Vert. 62°	1.8 : 1	38,5 cm	10		
P-22/460	TETRA400 (450 - 470 MHz)	22	12,5 dB(i)	28 dB	Horiz. 73° Vert. 49°	<1.5 : 1	123 cm	10	144 x 33,5 x 30	0.145
P-28 TETRA400/GSM	TETRA400/GSM (340 - 960 MHz)	28	8 - 10 dB(i)	22 dB	Horiz. 80° Vert. 62°	<1.5 : 1	82 cm	10	94 x 47 x 34	0.150
P-54 GSM/UMTS	(850 - 960 MHz) DCS (1710 - 1880 MHz) UMTS (1920 - 2170 MHz)	54	10 - 12 dB(i)	24 dB	Horiz. 43° Vert. 34°	<1.6 : 1	56,5 cm	15	111 x 34 x 27	0.102

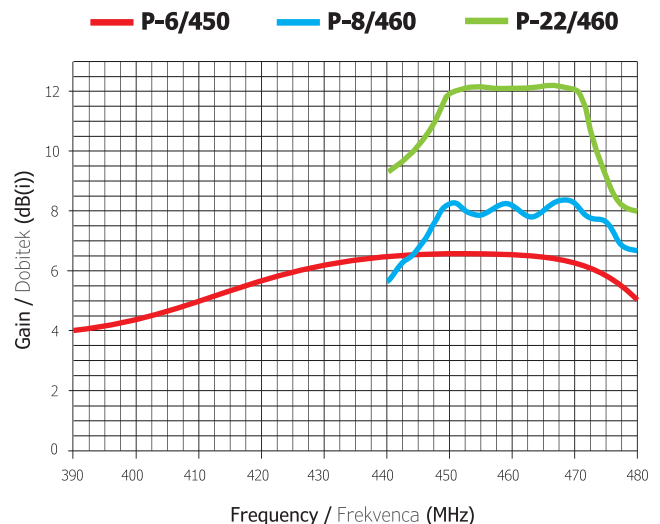
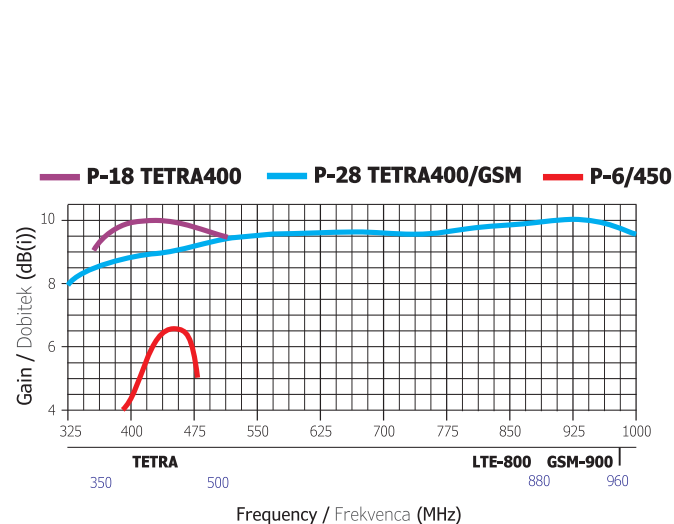
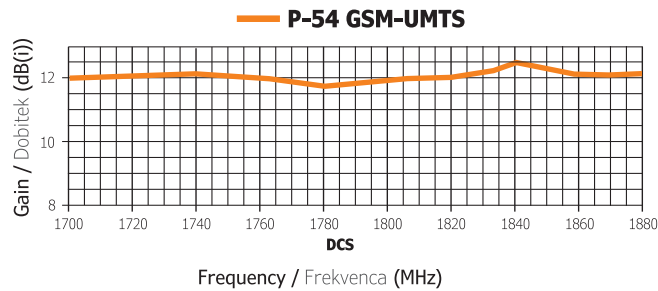
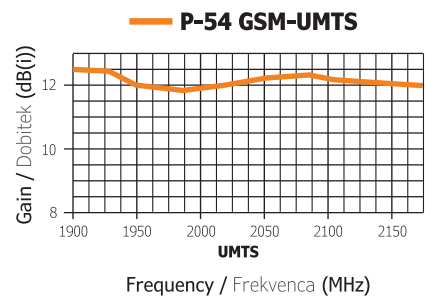
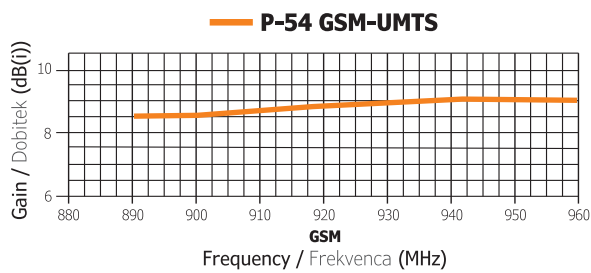
MOBILE NETWORK ANTENNAS - TETRA400, GSM

ANTENE ZA MOBILNA OMREŽJA - TETRA400, GSM



P-54 GSM/UMTS

DIAGRAMS OF GAINS / GRAFI DOBITKOV



MOBILE NETWORK ANTENNAS - NARROW BAND

ANTENE ZA MOBILNA OMREŽJA - OZKOPASOVNE



P-22 LTE



P-24 WL

TECHNICAL DATA / TEHNIČNI PODATKI

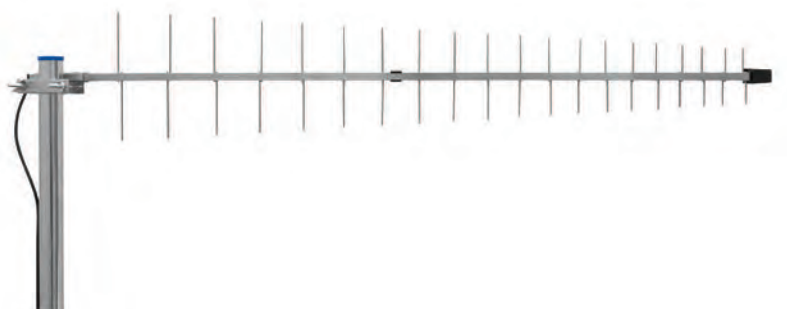
Type Tip	Channels (frequency) Kanali (frekvenca)	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Max. VSWR Maks. VSWR	Lenght Dolžina antene	Packing Pakiranje		
								pcs. kos	cm	m ³
P-22 LTE *	800 MHz (790 - 862 MHz)	22	11 dB(i)	24 dB	Horiz. 66° Vert. 52°	1.7 : 1	78,5 cm	1	80 x 25 x 8	0,015
								10	92 x 33 x 29	0,088
P-40 L700900 *	700 MHz (698 - 790 MHz) 800 MHz (790 - 862 MHz) 900 MHz (880 - 960 MHz)	40	13 dB(i)	25 dB	Horiz. 50° Vert. 54°	< 1.5 : 1	125 cm	10	129 x 41 x 28	0,148
P-24 WL **	Wi-Fi & LTE 2,6 2,4 - 2,7 GHz	24	11 dB(i)	24 dB	Horiz. 48° Vert. 34°	1.6 : 1	41 cm	25	92 x 33 x 29	0,088

* Antenna is also available in MIMO version (see page 43). / Antena je na voljo tudi v MIMO izvedbi (glejte stran 43).

** Antenna has 3m coaxial cable / Antena ima 3 m koaksialnega kabla

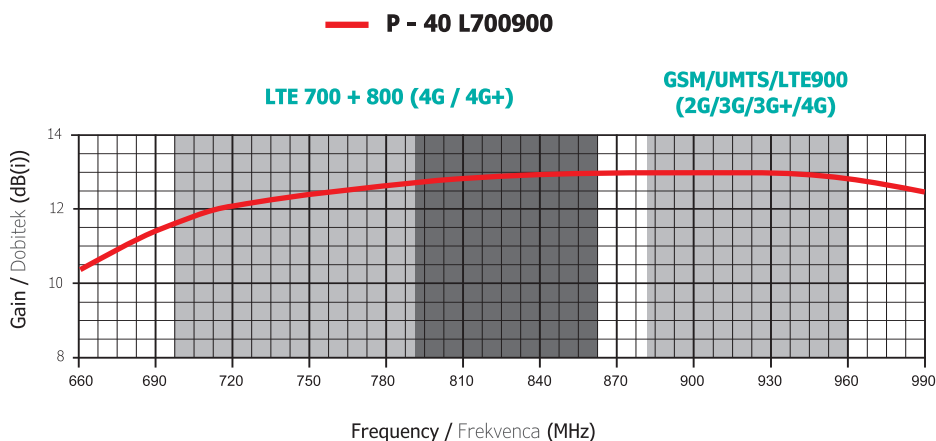
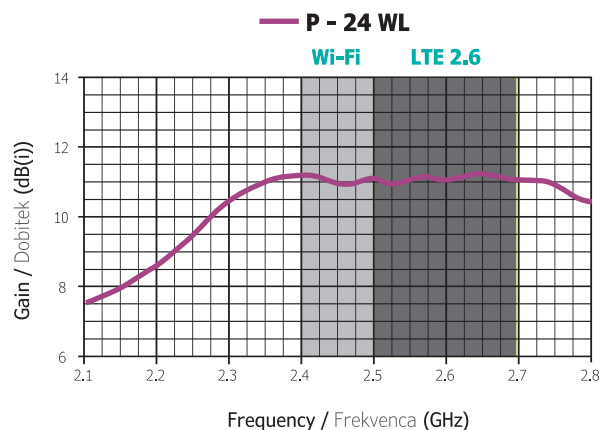
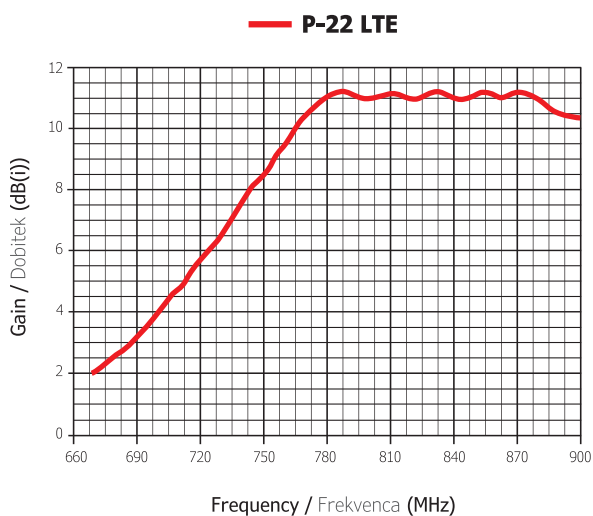
MOBILE NETWORK ANTENNAS - NARROW BAND

ANTENE ZA MOBILNA OMREŽJA - OZKOPASOVNE



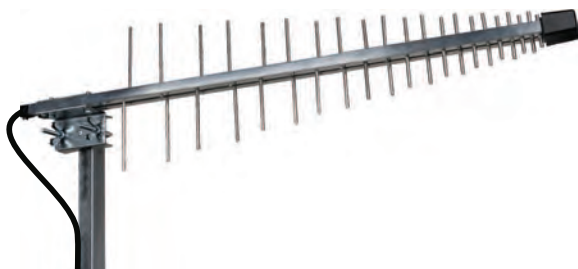
P-40 L700900

DIAGRAMS OF GAINS / GRAFI DOBITKOV

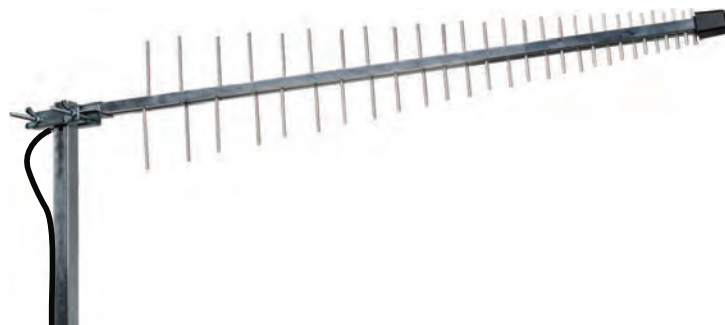


MOBILE NETWORK ANTENNAS - UNICOM

ANTENE ZA MOBILNA OMREŽJA - UNICOM



P-42 UNICOM



P-56 UNICOM

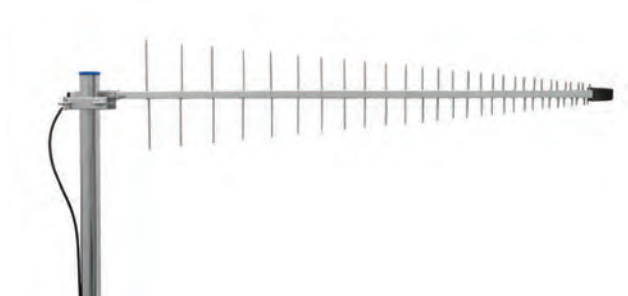
TECHNICAL DATA / TEHNIČNI PODATKI

Type Tip	Channels (frequency) Kanali (frekvenca)	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Max. VSWR Maks. VSWR	Length Dolžina antene	Packing Pakiranje		
								pcs. kos	cm	m ³
P-30 UNICOM		30	6,5 - 8 dB(i)	23 dB	Horiz. 76° Vert. 68°		45 cm	20	111 x 34 x 27	0.102
P-42 UNICOM	800 MHz - 2600 MHz (790 MHz - 2.7 GHz)	42	8 - 9.5 dB(i)	23 dB	Horiz. 64° Vert. 56°		72 cm	10	111 x 34 x 16	0.060
P-56 UNICOM		56	9.5 - 11.5 dB(i)	24 dB	Horiz. 52° Vert. 44°	<1.5 : 1	98 cm	10	111 x 34 x 27	0.102
P-32 L700 UNI	700 MHz - 2600 MHz (698 MHz - 2.7 GHz)	32	7 - 9 dB(i)	22 dB	Horiz. 74° Vert. 66°		58 cm	20	119 x 40 x 34	0.163
P-58 L700 UNI		58	9 - 11 dB(i)	23 dB	Horiz. 54° Vert. 46°	<1.6 : 1	107 cm	10	111 x 34 x 27	0.102
P-34 5G 7003800*	700 MHz - 3800 MHz (698 MHz - 3.8 GHz)	34	4 - 7.5 dB(i)	22 dB	Horiz. 72° Vert. 64°	<1.7 : 1	59 cm	10 20	71 x 40 x 28 119 x 40 x 28	0.078 0.131
P-60 5G 7003800*		60	7.5 - 10.5 dB(i)	23 dB	Horiz. 52° Vert. 44°	<1.6 : 1	110 cm	10	119 x 40 x 28	0.131
P-62 5G 14003800*	1400 MHz - 3800 MHz (1,4 GHz - 3,8 GHz)	62	10 - 12 dB(i)	24 dB	Horiz. 46° Vert. 40°	<1.5 : 1	100 cm	10	111 x 34 x 27	0.102

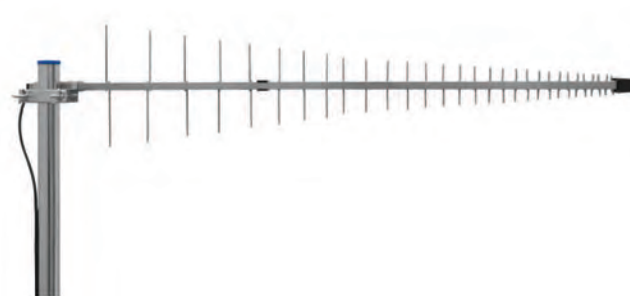
Antennas are also available in MIMO version (see page 43). / Antene so dobavljive tudi v MIMO izvedbi (glejte str. 43)

MOBILE NETWORK ANTENNAS - UNICOM

ANTENE ZA MOBILNA OMREŽJA - UNICOM

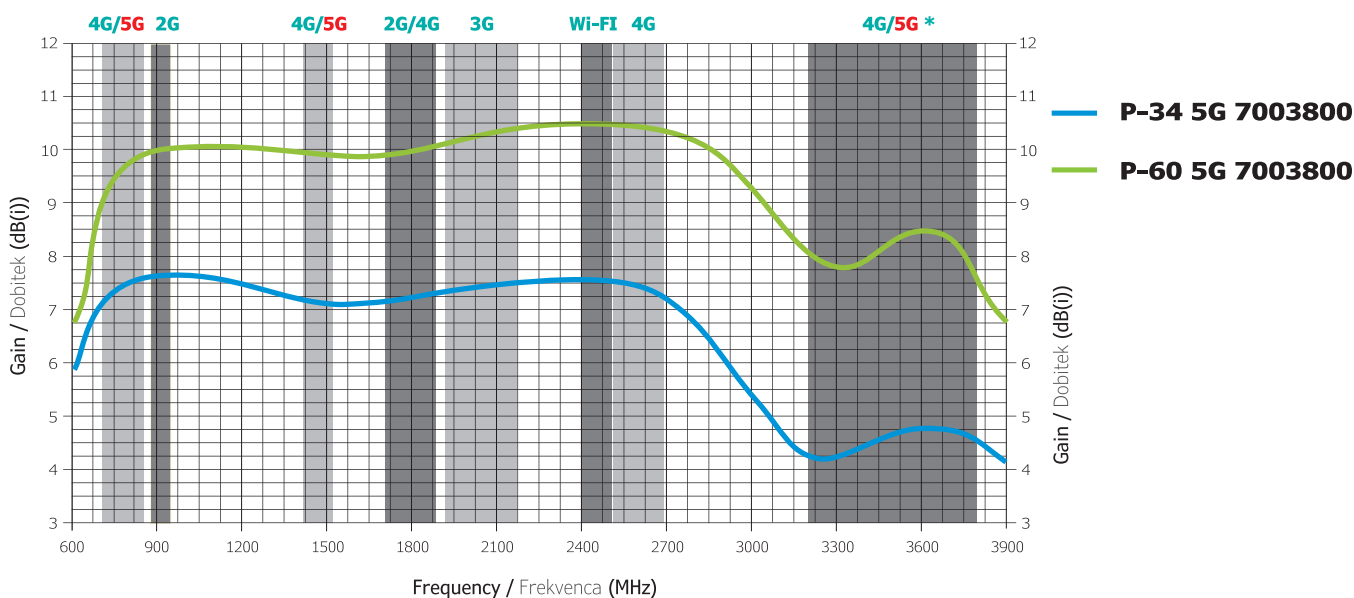
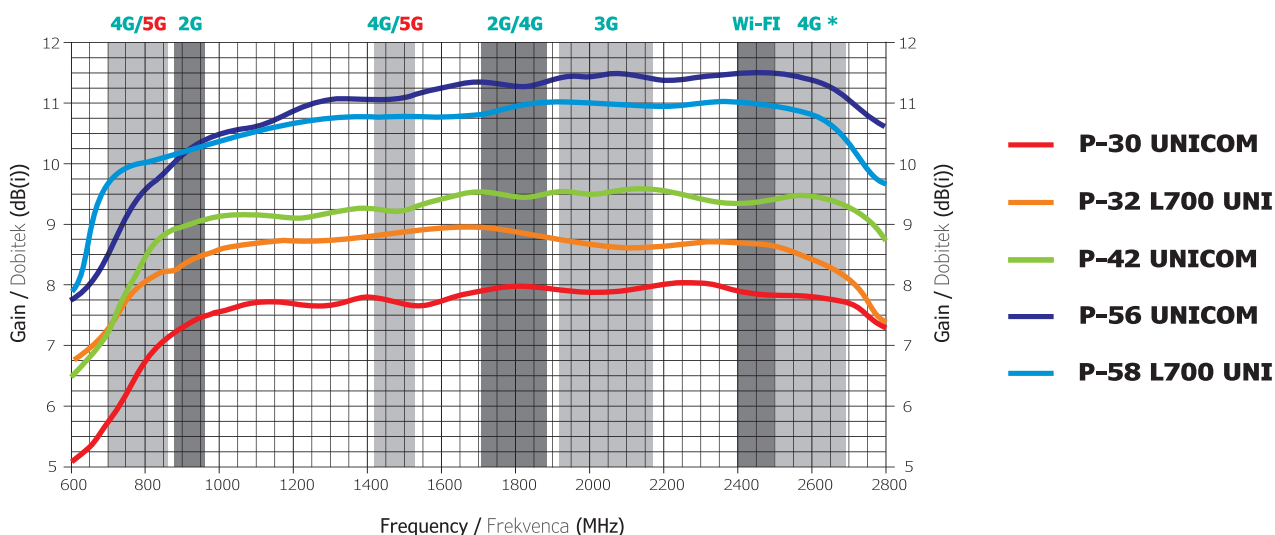


P-58 L700 UNI



P-60 5G 7003800

DIAGRAM OF GAINS / GRAF DOBITKOV



* Other names for important frequency bands / Druga imena za pomembne frekvenčne pasove:

2G: GSM, EDGE; GSM-900, DCS-1800, GSM-850, GSM-1900

3G: UMTS, HSPA, WCDMA; IMT-1900, WCDMA-2100

4G: 4G+, LTE, LTE Advanced; APT-700, EUDD-800, L-Band-1500, IMT-E-2600, C-Band-3300-3800

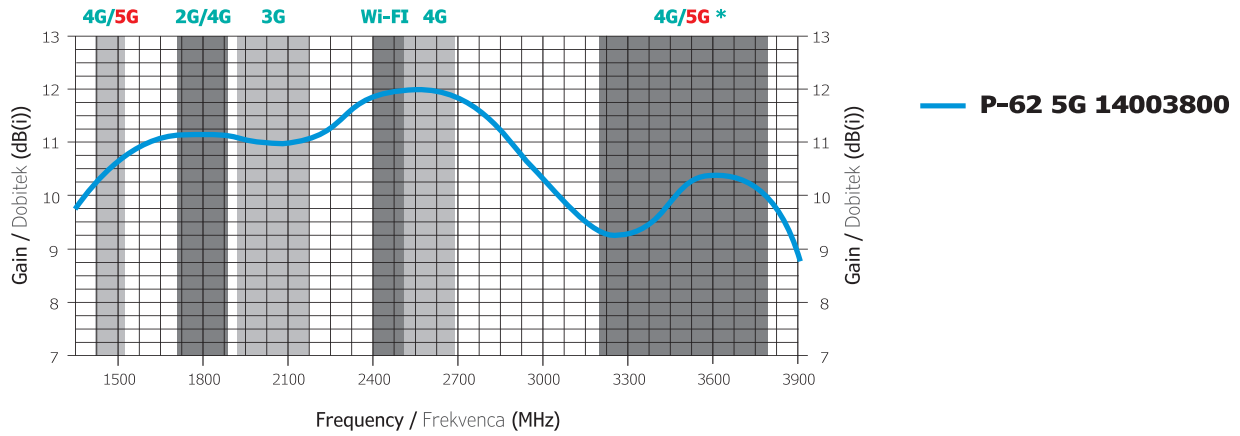
5G: 5G; SMH-700, DD-800, L-Band-1500, C-Band-3300-3800

Wi-Fi: WLAN; 2,4 GHz

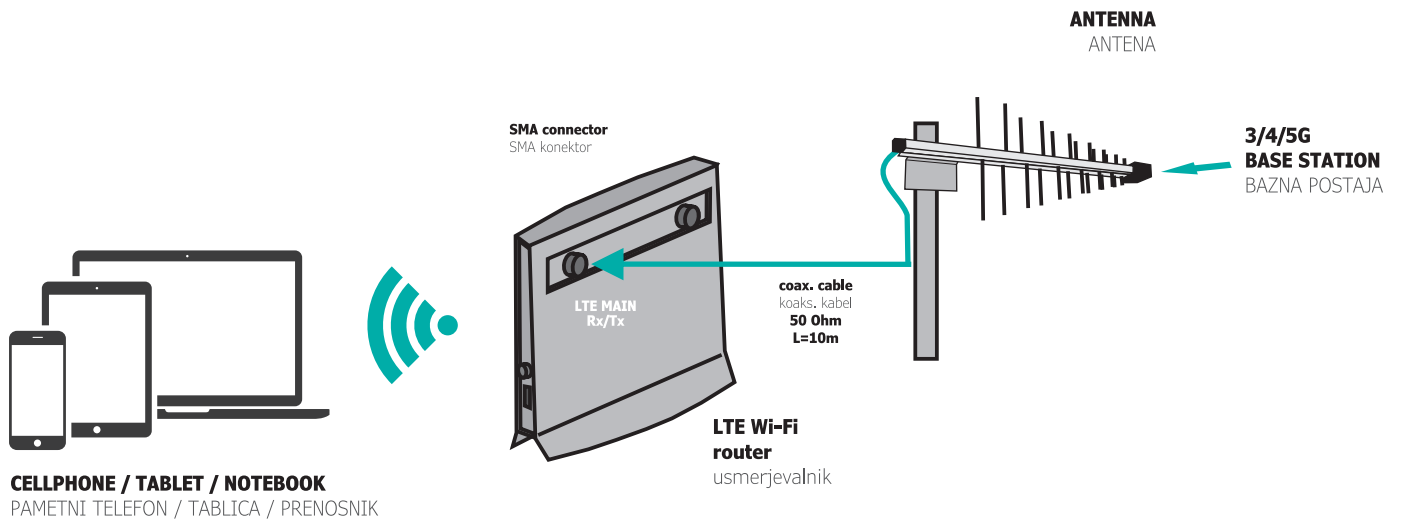
MOBILE NETWORK ANTENNAS - UNICOM

ANTENE ZA MOBILNA OMREŽJA - UNICOM

DIAGRAM OF GAINS / GRAF DOBITKOV

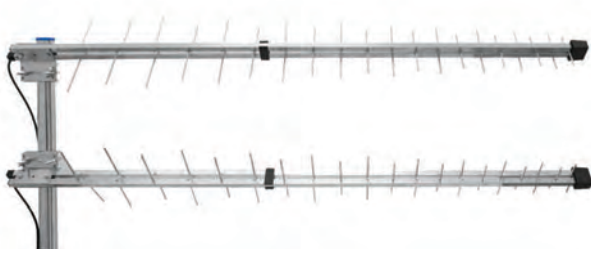


EXAMPLES OF CONNECTION / PRIMERI PRIKLJUČITVE

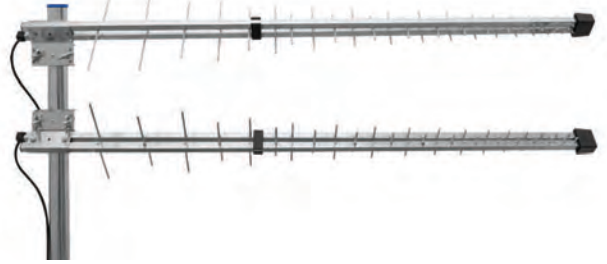


MOBILE NETWORK ANTENNAS - MIMO sets

ANTENE ZA MOBILNA OMREŽJA - MIMO kompleti



P-40 L700900 MIMO



P-60 5G 7003800 MIMO

TECHNICAL DATA FOR ONE ANTENNA / TEHNIČNI PODATKI ZA ENO ANTENO										
Antenna set Type Antenski set Tip	3G 4G LTE 5G (frequency) 3G 4G LTE 5G (frekvenca)	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Sirina glav. lista	Max. VSWR Maks. VSWR	Lenght Dolžina antene	Packing * Pakiranje *		
								pcs. kos	cm	m ³
P-22 LTE MIMO	800 MHz (790 - 862 MHz)	22	11 dB(i)	24 dB	Horiz. 66° Vert. 52°	1.7 : 1	78.5 cm	5	92 x 33 x 29	0,088
P-40 L700900 MIMO	700 MHz (698 - 790 MHz) 800 MHz (790 - 862 MHz) 900 MHz (880 - 960 MHz)	40	13 dB(i)	25 dB	Horiz. 50° Vert. 54°	<1.5 : 1	125 cm	5	129 x 41 x 28	0,148
P-30 UNICOM MIMO		30	6,5 - 8 dB(i)	23 dB	Horiz. 76° Vert. 68°		45 cm	10	92 x 33 x 29	0,088
P-42 UNICOM MIMO	800 MHz - 2600 MHz (790 MHz - 2.7 GHz)	42	8 - 9.5 dB(i)	23 dB	Horiz. 64° Vert. 56°	<1.5 : 1	72 cm	5	111 x 34 x 16	0,060
P-56 UNICOM MIMO		56	9.5 - 11.5 dB(i)	24 dB	Horiz. 52° Vert. 44°		98 cm	5	111 x 34 x 27	0,102
P-32 L700 U-MIMO		32	7 - 9 dB(i)	22 dB	Horiz. 74° Vert. 66°		58 cm	10	119 x 40 x 34	0,163
P-58 L700 U-MIMO	700 MHz - 2600 MHz (698 MHz - 2.7 GHz)	58	9 - 11 dB(i)	23 dB	Horiz. 54° Vert. 46°	<1.6 : 1	107 cm	1 5	113 x 31 x 10 119 x 40 x 28	0,035 0,131
P-34 5G 7003800 MIMO **	700 MHz - 3800 MHz (698 MHz - 3.8 GHz)	34	4 - 7.5 dB(i)	22 dB	Horiz. 72° Vert. 64°	<1.7 : 1	59 cm	5 10	71 x 40 x 28 119 x 40 x 28	0,078 0,131
P-60 5G 7003800 MIMO **		60	7.5 - 10.5 dB(i)	23 dB	Horiz. 52° Vert. 44°	<1.6 : 1	110 cm	5	119 x 40 x 28	0,131
P-62 5G 14003800 MIMO **	1400 MHz - 3800 MHz (1,4 GHz - 3.8 GHz)	62	10 - 12 dB(i)	24 dB	Horiz. 46° Vert. 40°	<1.5 : 1	100 cm	5	111 x 34 x 27	0,102

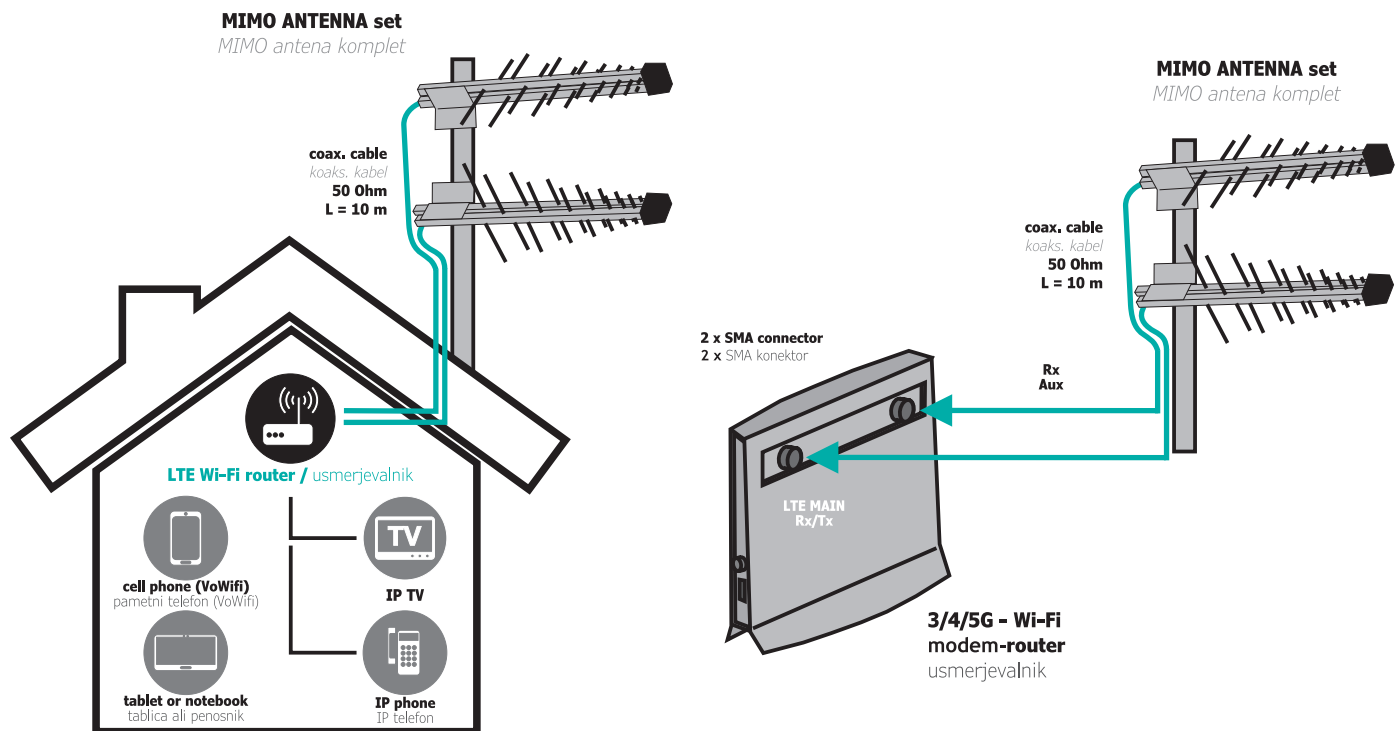
Gain diagram for each antenna is the same as for standard UNICOM/LTE/5G antenna (see previous pages on this catalogue). /
Graf dobitek za vsako anteno je enak kot za standardno UNICOM/LTE/5G anteno (glejte predhodne strani v tem katalogu).

* One set contain two antennas, adapted for X-polarisation mounting (MIMO reception). Standard version of antenna includes 10 m high quality coax. cable ended by SMA male connector. /
En komplet vsebuje dve anteni, prilagojeni za montažo v X polarizaciji (MIMO sprejem). Standardna izvedba antene vsebuje 10 m visokokvalitetnega koaks. kabla in SMA moški konektor na koncu kabla.

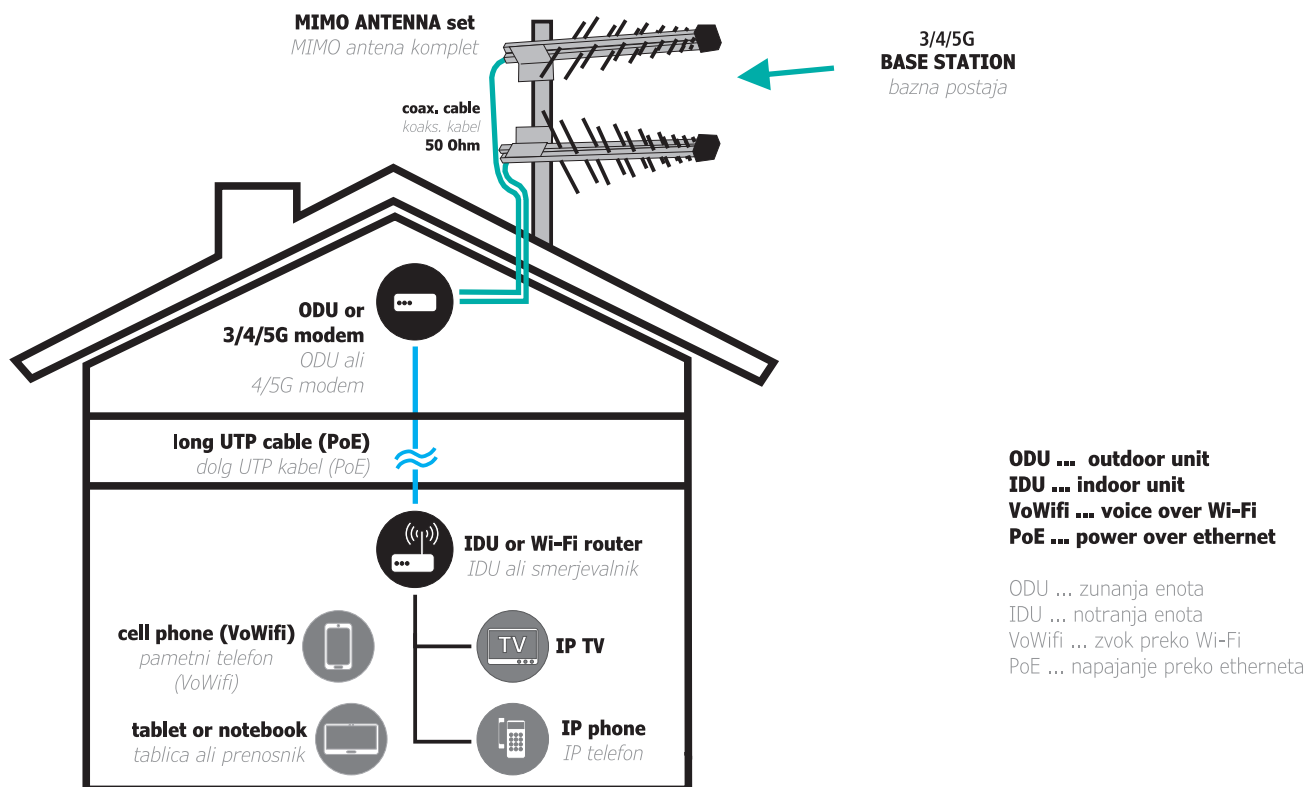
MOBILE NETWORK ANTENNAS - MIMO

ANTENE ZA MOBILNA OMREŽJA - MIMO

EXAMPLES OF CONNECTION / PRIMERI PRIKLJUČITVE



Short distance between router and antennas / Kratka razdalja med usmerjevalnikom in antenami



Long distance between router and antennas / Dolga razdalja med usmerjevalnikom in antenami

ANTENNA POWER SUPPLY

ANTENSKI NAPAJALNIK



APS 12/150

TECHNICAL DATA / TEHNIČNI PODATKI							Packing / Pakiranje		
Type / Tip	Power supply / Omrežna napetost	Impedance / Impedanca	Output voltage / Izhodna napetost	Max. output current / Maksimalni izhodni tok	Connection to antenna (input) / Konektor za priključitev antene (vhod)	Connection to antenna (output) / Konektor za priključitev antene (izhod)	pcs. / kos	cm	m ³
APS 12/150	AC 230 V	75 Ohm	DC 12 V	150 mA	1 x "F" female 1 x "F" ženski	1 x "F" female 1 x "F" ženski	1 * 100 **	2,5x7,1x10 46x37x22	0,0003 0,0374

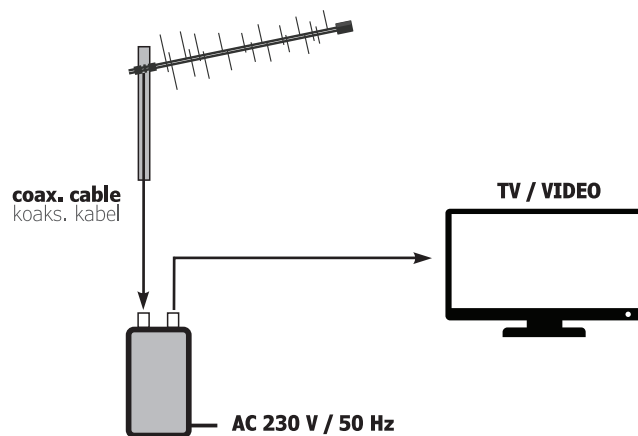
* Single packing: white carton box without print /
Posamično pakiranje: bela nepotiskana embalaža

** Transport packing: brown carton box without print /
Transportno pakiranje: rjava nepotiskana embalaža

Antenna power supply is used for active TV / radio / DAB antennas, when external power supply is needed. /
Antenski napajalnik se uporablja pri aktivnih TV / radio / DAB antenah, kjer je zunanji napajalnik potreben.

EXAMPLE OF CONNECTION / PRIMER PRIKLJUČITVE

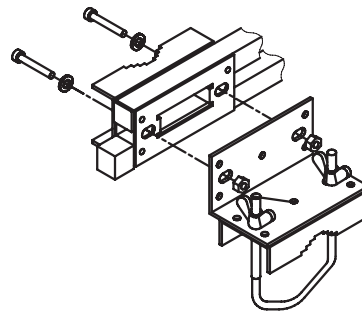
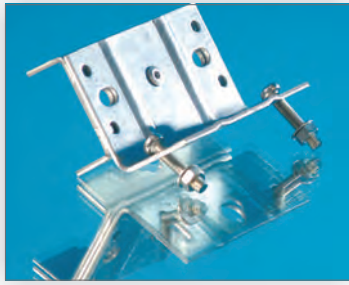
TV ANTENNA with amplifier or active filter TV ANTENA z ojačevalnikom ali aktivnim filtrom



POWER SUPPLY
NAPAJALNIK

ACCESSORIES

PRIBOR



Vertical mounting part **D2-V** is used as additional part for LOG antennas. LOG antennas can be used for vertical polarisation with **D2-V** part. It has to be mounted on LOG antenna with screws, washers and nuts (included).

Vertikalni pritrdilec D2-V se uporablja kot dodatni montažni element za LOG antene. Z njim lahko pritrdimo LOG anteno na drog za uporabo antene pri vertikalni polarizaciji. Vgradi se na LOG anteno z vijaki, podložkami in maticami (so priloženi)

We offer complete assortment of terrestrial and mobile network systems accessories.

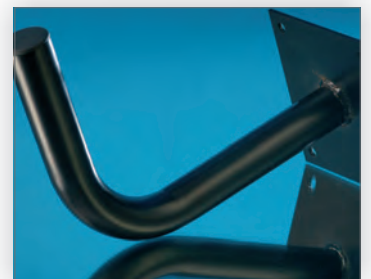
Nudimo vam tudi kompleten pribor za zemeljske antene in mobilna omrežja.



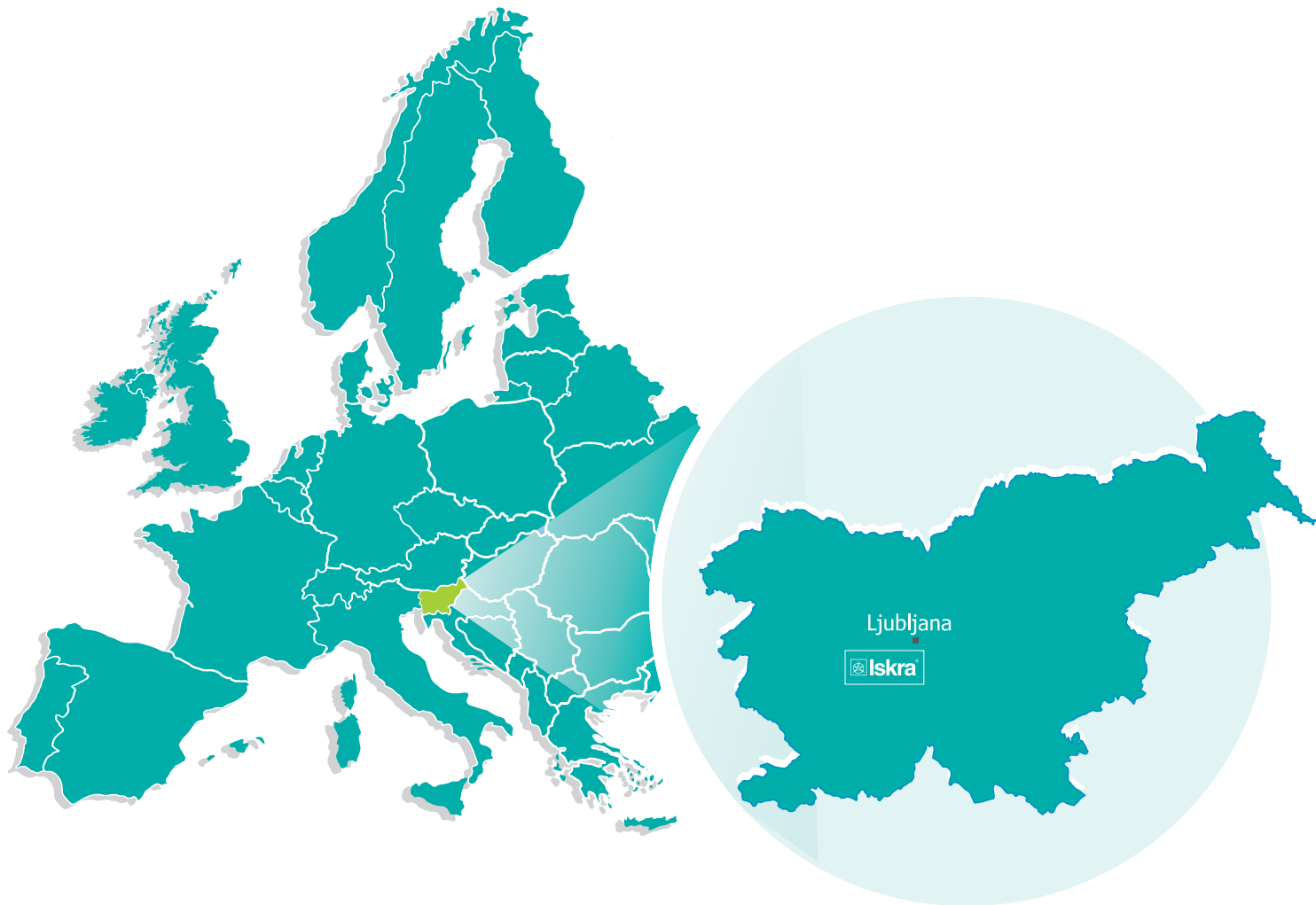
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