

CATALOGUE 2016/2

RCD RADIOKOMUNIKACE



TETRAPOL ACCESSORIES

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SUCCESSOR TO THE THRONE
OF TELEGRAFIA AND TESLA PARDUBICE
IN THE KINGDOM OF RADIOCOMMUNICATION

PROVIDER OF ITS OWN RADIO SOLUTION TO:

- ALL ROAD TUNNELS IN THE CZECH REPUBLIC
- ALL STATIONS OF PRAGUE METRO FOR EMERGENCY SERVICES AND MOBILE OPERATORS
- RADIO NETWORKS FOR SPECIAL FORCES OF THE CZECH POLICE
- DEVELOPMENT AND PRODUCTION OF CUSTOMIZED HIGH-FREQUENCY DEVICES
- LOCOMOTIVES IN TERRITORIES OF GERMANY, FRANCE AND THE BENELUX COUNTRIES

Company Profile

Name RCD Radiokomunikace spol. s r. o.
Address U Pošty 26, 533 52 Staré Hradiště
Region Pardubice, Czech Republic
Established 1993

Main Activities R&D of Radio Equipment and Solutions
Production and Turnkey Delivery
including Hotline Services 24 hours



Antennas of TETRAPOL Radio System



Road Tunnel Technology Assembling

RCD Radiokomunikace was established in 1993 and through its activities and results continues the long tradition of electronic production in Pardubice area.

RCD Radiokomunikace develops and produces customized high frequency solutions and equipment including antennas, filters, radio repeaters and radio accessories used especially by the Police and Fire Brigade working in emergencies.

RCD Radiokomunikace supplies turnkey radio solutions in underground areas, large buildings, road and railway tunnels and metros. The company is able to respond flexibly to special customer requirements on the 24-hours hotline base using components from its own development and production.

RCD Radiokomunikace is a holder of certificates: EN ISO 9001, EN ISO 14001, BS OHSAS 18001, ISO/IEC 27001. Company is also certified by National Security Authority of the Czech Republic for classification level secret.



Description

BL 03D bluetooth data interface is designed for wireless data transmission between EADS (MATRA) mobile radio with 3G control box and data terminal equipment (smartphone, tablet, PC). (It is necessary to adjust BL 03D for using with 2G control box.)

Pairing of data terminal equipment with BL 03D interface is protected by PIN code.

Technical Specification

| Type | BL 03D | |
|---------------------|--------|-----------------------------|
| Power supply | V | 5 from mobile radio battery |
| Power consumption | mA | 35 |
| | | 5 without connection |
| Range | m | approx. 20 |
| Operating frequency | MHz | 2400 ÷ 2480 |
| Max. RF power | dBm | -20 ÷ +14 |



HAND SPEAKER / MIC
FOR TPH 700 TETRAPOL TERMINALS

MR 37 DNS



Rotating clip



Cable outlet from connector

Description

MR 37 DNS hand speaker / mic for TPH700 terminal of TETRAPOL system is equipped with speaker, microphone, PTT button, rotating clip, connector for external earphone connection, optical and acoustic indication of connection in TETRAPOL system. The device is also equipped with digital noise suppressor module which filters signal from microphone and suppresses noises captured by microphone. Speaker mic can be therefore used even in high noisy environments where speaker mic significantly improves call quality compared to conventional microphones.

Optical indication of connection – established connection is indicated by red LED after pressing PTT button. User can disable this function, if necessary.

Acoustic indication of connection – three different types of acoustic indication can be set up by user: classic mode, mode with indication of connection into network or silent mode without acoustic indication.

It is possible to select one of the following functions for yellow button (TL) during production according to customer's requirement: white light (torch), end call, emergency or keying.

Cable can be led out of the connector according to customer's requirement: up, down or sideways.



Designed for TPH 700
TETRAPOL terminals



Rotating clip



Cable outlet from connector

Description

MR 37 hand speaker / mic for TPH700 terminal of TETRAPOL system is equipped with speaker, microphone, PTT button, rotating clip, connector for external earphone connection, optical and acoustic indication of connection in TETRAPOL system.

Optical indication of connection – established connection is indicated by red LED after pressing PTT button. User can disable that function, if necessary.

Acoustic indication of connection – three different types of acoustic indication can be set up by user: classic mode, mode with indication of connection into network or silent mode without acoustic indication.

It is possible to select one of the following functions for yellow button (TL) during production according to customer's requirement: white light (torch), end call, emergency or keying.

Cable can be led out of the connector according to customer's requirement: up, down or sideways.



Designed for TPH 700
TETRAPOL terminals

Description

GPM 37 hand speaker / mic with built-in GNSS receiver is designed for TPH 700 TETRAPOL hand radio terminal.

The device enables voice communication of mobile participant within TETRAPOL radio network and tracking of radio terminal position in automatic tracking systems (AVL). GNSS receiver analyses signals of GPS and GLONASS systems.

GPM 37 is equipped with speaker, microphone, PTT button, rotating clip, connector for external earphone connection, optical and acoustic indication of connection in TETRAPOL system.

Optical indication of connection – established connection is indicated by red LED after pressing PTT button. User can disable this function, if necessary.

Acoustic indication of connection – three different types of acoustic indication can be set up by user: classic mode, mode with indication of connection into network or silent mode without acoustic indication.

Yellow button is designed for switching on white light (torch).

GPM 37 is powered from radio terminal battery and switched on together with radio terminal. The device exceeds in low power consumption.



Rotating clip

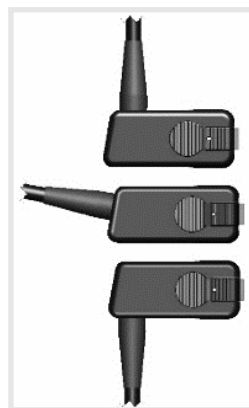
Technical Specification

| Type | GPM 37 | | |
|--|-------------------|-------------------|------|
| GNSS receiver | GPS + GLONASS | | |
| Position accuracy | m | 3 * | |
| GNSS sensitivity | Acquisition | dBm | -160 |
| | Tracking | dBm | -165 |
| Acquisition time | Cold start | s | 34 |
| | Hot start | s | 3 |
| Power consumption | GNSS receiver on | mA | 25 |
| | GNSS receiver off | mA | 5 |
| Operating temperature range / Ingress protection | °C | -20 ÷ +55 / IP 54 | |
| Weight | kg | 0,2 | |
| Dimensions w × h × d | mm | 62 × 72 × 35 | |

* Position accuracy depends on GPM 37 receiver position and on GPS satellites visibility.



Designed for TPH 700
TETRAPOL terminals



Cable outlet from connector



Rotating clip



Designed for TPH 700
TETRAPOL terminals

Description

MR 31 hand speaker / mic for TPH 700 terminals of TETRAPOL system is equipped with speaker, microphone, PTT button, rotating clip, connector for external earphone connection and acoustic indication of connection in TETRAPOL system.

Acoustic indication of connection – three different types of acoustic indication can be set up by user: classic mode, mode with indication of connection into network or silent mode without acoustic indication.

Cable can be led out of the connector according to customer's requirement: up, down or sideways.



Description

Charger set of TPH 700 terminals is designed for fixed installation into vehicle.

Set consist of BZ 400 vehicle voltage converter and separate box of KZ 33 desk single unit charger for TPH 700 terminal.

Technical Specification

| Type | KZ 33 Box + BZ 400 | |
|------------------------------|--------------------|--------------|
| Power supply | V DC | 12 or 24 |
| Charger supply voltage | V DC | 7.5 |
| Maximum output current | A | 2.9 |
| Indication | | green LED |
| Battery charging temperature | °C | 0 ÷ +45 |
| Storage temperature | °C | -40 ÷ +80 |
| Length of feeder cable | m | 1 |
| Length of output cable | m | 0.5 |
| KZ 33 Box dimensions | mm | 95 × 92 × 59 |
| BZ 400 dimensions | mm | 46 × 40 × 21 |
| Weight | g | 206 |

KZ 33

Description

KZ 33 single-unit desktop charger for TPH 700 terminals.



Technical specification

| | | |
|------------------------------|------|-------------------|
| Type | | KZ 33 |
| Power supply | V AC | 100 ÷ 240 |
| Charger supply voltage | V DC | 7.5 |
| Indication | | Green / Red – LED |
| Battery charging temperature | °C | 0 ÷ +45 |
| Storage temperature | °C | -40 ÷ +80 |
| Dimensions | mm | 95 × 92 × 59 |
| Weight | g | 130 / 190 |



KZ 34

Description

KZ 34 multi-unit desktop charger for TPH 700 terminals.



Technical Specification

| | | |
|------------------------------|------|----------------------|
| Type | | KZ 34 |
| Power supply | V AC | 100 ÷ 240 |
| Charger supply voltage | V DC | 6× 7.5 |
| Indication | | 6× Green / Red – LED |
| Battery charging temperature | °C | 0 ÷ +45 |
| Storage temperature | °C | -40 ÷ +80 |
| Dimensions | mm | 548 × 95 × 60 |
| Weight | g | 1190 / 490 |

KZ 32

Description

KZ 32 car charger for TPH 700 terminals

- Easy charging of TPH 700 with inbuilt battery
- Well-arranged charging status indication
- Radio operation possibility during charging
- Standard cigarette lighter plug

Technical Specification

| | | |
|------------------------------|------|------------------|
| Type | | KZ 32 |
| Power supply | V DC | 12 or 24 |
| Charger supply voltage | V DC | 7.5 |
| Indication | | Blue / Red – LED |
| Battery charging temperature | °C | 0 ÷ +45 |
| Storage temperature | °C | -40 ÷ +80 |
| Cable length | mm | 1500 |
| Dimensions | mm | 92 × 28 × 18 |
| Weight | g | 80 |



KZ 31

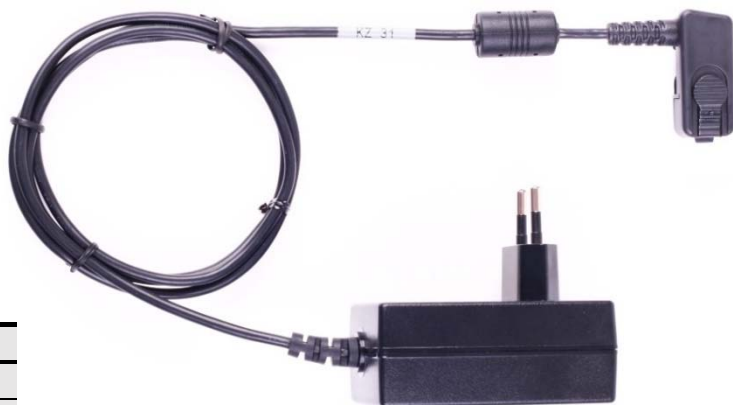
Description

KZ 31 charger for TPH 700 terminals

- Easy charging of TPH 700 with inbuilt battery
- Well-arranged charging status indication
- Radio operation possibility during charging

Technical Specification

| | | |
|------------------------------|------|------------------|
| Type | | KZ 31 |
| Power supply | V AC | 100 ÷ 240 |
| Charger supply voltage | V DC | 7.5 |
| Indication | | Blue / Red – LED |
| Battery charging temperature | °C | 0 ÷ +45 |
| Storage temperature | °C | -40 ÷ +80 |
| Cable length | mm | 1150 |
| Dimensions | mm | 80 × 70 × 50 |
| Weight | g | 200 |





Anchoring pin for TPH 700 terminal
RCF 200 071



Leather holder
RCF 100 022



Separable leather holder
Velcro fastener
RCK 100 160



Designed for TPH 700
TETRAPOL terminals



Universal connecting set
RT



Cable outlet
from connector



Designed for TPH 700
TETRAPOL terminals



Universal connecting set
RJ

Features

Push-pull latching connector for frequent connecting and disconnecting.

Use headsets **T-xx** with universal connecting sets **RT** (see separated catalogue list of Headsets T-xx).

Handsfree RT-xx

=
Universal connecting set RT
+
Headset T-xx
+
PTT button PTT-xx

Example

RT-53 = RT + T-53 + PTT-34

Features

Jack connector with bayonet lock. It is not recommended for frequent connecting and disconnecting.

Use headsets **J-xx** with universal connecting set **RJ** (see separated catalogue list of Headsets J-xx).

Handsfree RJ-xx

=
Universal connecting set RJ
+
Headset J-xx
+
PTT button PTT-xx

Example

RJ-53 = RJ + J-53 + PTT-34

Universal connecting sets **RT** and **RJ** have user-programmable acoustic signalling of radio terminal transmission. Cable outlet can be from upper, down or side part of connector according to customer's requirement. RT and RJ sets can be connected to various **PTT buttons** – see separated catalogue list of PTT buttons.



T-147



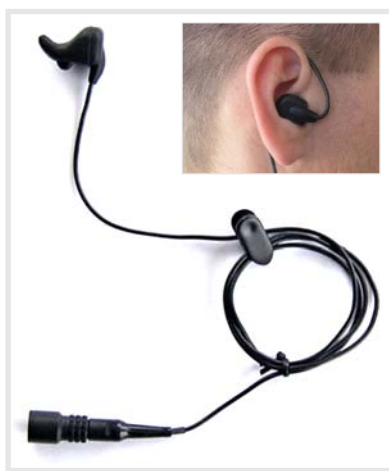
T-46



T-50



T-52



T-53



T-53T



T-70



T-94



T-98



T-99



J-147



J-46



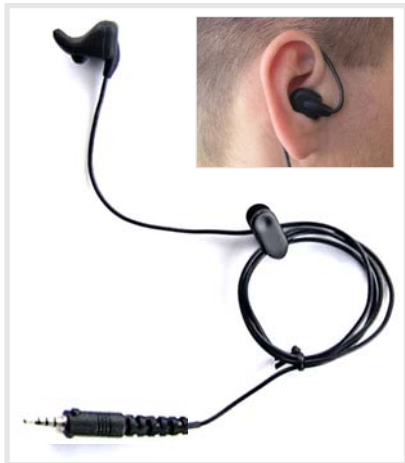
J-50



J-52



J-60T



J-53



J-53T



J-94



J-98



J-99



PTT-21S



PTT-22



PTT-10



PTT-10T



PTT-33



PTT-34


 Universal connecting set
RMT

 Universal connecting set
RMJ

Features

Push-pull latching connector for frequent connecting and disconnecting.

Use headsets **T-xx** with universal connecting sets **RMT** (see separated catalogue list of Headsets T-xx).

Handsfree RMT-xx

=

Universal connecting set RMT

+

Headset T-xx

+

PTT button PTT-xx

Example

RMT-53 = RMT + T-53 + PTT-34



Features

Jack connector with bayonet lock. It is not recommended for frequent connecting and disconnecting.

Use headsets **J-xx** with universal connecting set **RMJ** (see separated catalogue list of Headsets J-xx).

Handsfree RMJ-xx

=

Universal connecting set RMJ

+

Headset J-xx

+

PTT button PTT-xx

Example

RMJ-53 = RMJ + J-53 + PTT-34

Universal connecting sets **RMT** and **RMJ** have acoustic signalling of radio terminal transmission.

Cable outlet can be from right or left side of connector according to customer's requirement.

RMT and **RMJ** sets can be connected to various **PTT buttons** – see separated catalogue list of PTT buttons.



Designed for TPH 700
TETRAPOL terminals

Description

RP-91 headset kit is designed as **hidden radio accessory** that is not visible under clothes.

- Skin-coloured PTT button enables volume control in earphone.
- User-programmable acoustic signalling of TPH 700 radio transmission.
- Cable outlet can be from upper, down or side part of connector according to customer's requirement.



Description

RP-92 headset kit is designed as **hidden radio accessory** that is not visible under clothes.

- User-programmable acoustic signalling of TPH 700 radio transmission.
- Cable outlet can be from upper, down or side part of connector according to customer's requirement.



Designed for TPH 700
TETRAPOL terminals



Designed for TPH 700
TETRAPOL terminals



Description

RP-94 and RP-94 M1 are small lightweight headset kits.

- PTT button with integrated microphone.
- User-programmable acoustic signalling of TPH 700 radio transmission.
- Cable outlet can be from upper, down or side part of connector according to customer's requirement.



Designed for TPH 700
TETRAPOL terminals

Description

RP-95 is small lightweight headset kit.

- PTT button with integrated microphone.
- User-programmable acoustic signalling of TPH 700 radio transmission.
- Cable outlet can be from upper, down or side part of connector according to customer's requirement.

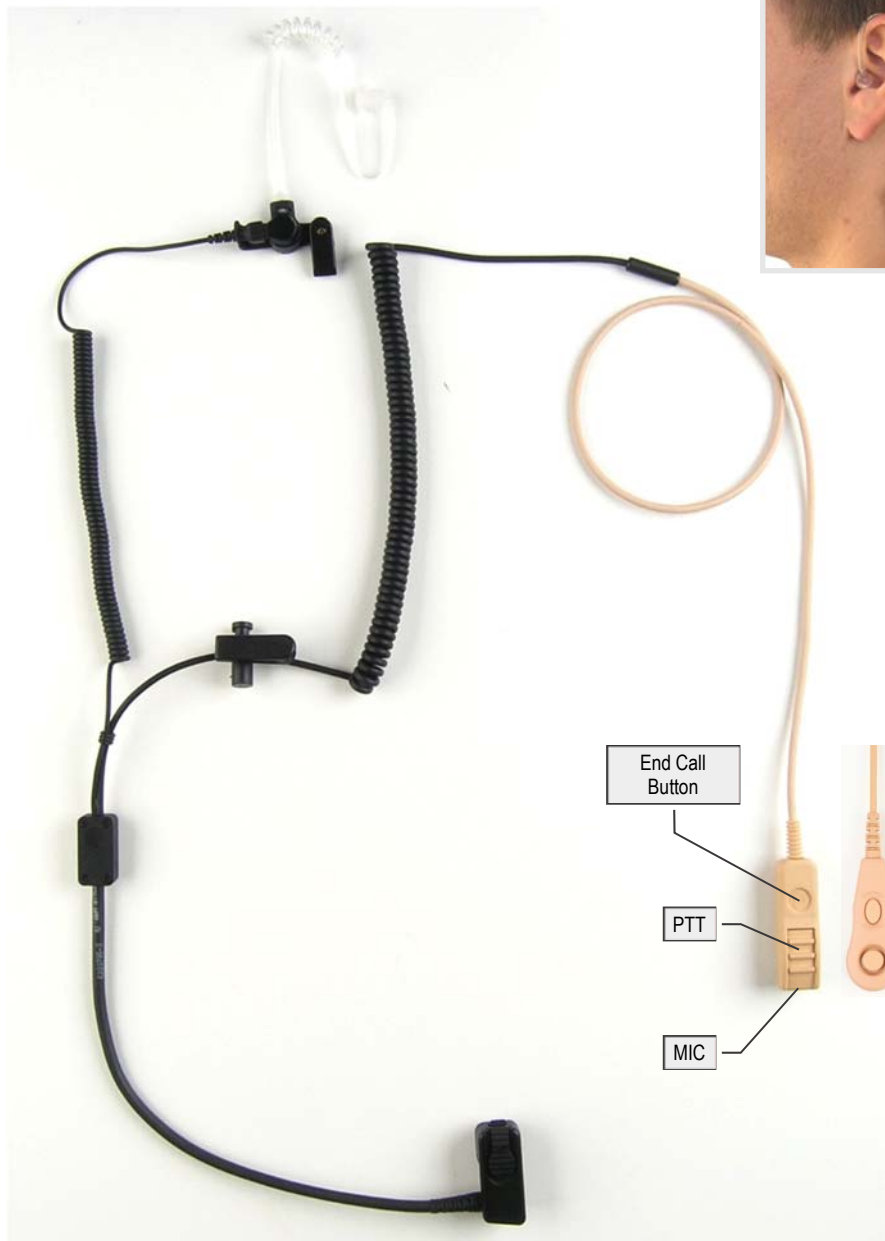


Designed for TPH 700 TETRAPOL terminals

Description

Skin-coloured VIP-32 headset kit is designed as hidden radio accessory that is not visible under clothes.

- PTT button with integrated microphone in palm, hidden earphone.
- Button for switching ON and OFF connection.
- Acoustic indication of keying and connection in TETRAPOL system.
- User-programmable acoustic signalling of TPH 700 radio transmission.
- Cable outlet can be from upper, down or side part of connector according to customer's requirement.



Designed for TPH 700 TETRAPOL terminals

Description

VIP-33 headset kit is designed as **hidden radio accessory** that is not visible under clothes.

- Skin-coloured PTT button with integrated microphone in palm, hidden earphone.
- Button for switching ON and OFF connection.
- Acoustic indication of keying and connection in TETRAPOL system.
- User-programmable acoustic signalling of TPH 700 radio transmission.
- Cable outlet can be from upper, down or side part of connector according to customer's requirement.



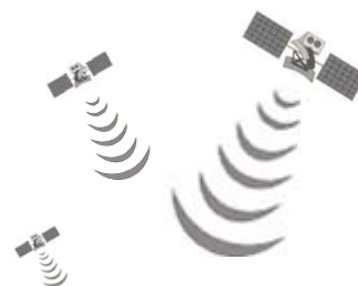
Description

GPS 33 is GNSS set designed for TETRAPOL WB BER or TPM 700 mobile radio. The set enables tracking of mobile radio position in automatic tracking systems (AVL).

The main parts of the set are GPP 02 GNSS receiver and converter of GNSS receiver. GNSS receiver supports GPS and GLONASS systems.

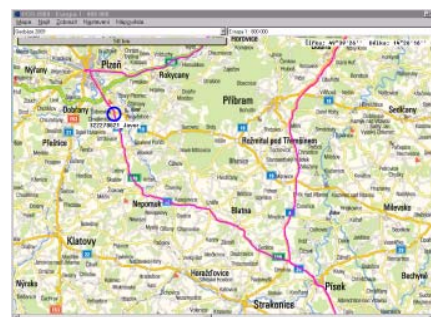
GPS 33 set exceeds in a simple installation without necessity of connection to 12 V DC on-board voltage. The set is powered from switching voltage of mobile radio. When mobile radio is switched off, car battery is not discharged.

GPP 02 GNSS receiver should be located in the vehicle to have the best view of as many satellites as possible, such as near rear side windows, rear window or windscreen.



Technical Specification

| Type | GPS 33 | | |
|-----------------------------|---------------|-------------------------------|------|
| GNSS receiver | GPS + GLONASS | | |
| Position accuracy | m | 3 * | |
| Sensitivity | Acquisition | dBm | -160 |
| | Tracking | dBm | -165 |
| Acquisition time | Cold start | s | 34 |
| | Hot start | s | 3 |
| Power consumption | mA | 27 | |
| Operating temperature range | °C | -25 ÷ +55 | |
| Weight | g | 180 and 60 | |
| Dimensions w × h × d | mm | 55 × 32 × 30 and 16 × 20 × 16 | |



* Position accuracy depends on GPP 02 receiver position in the vehicle and on GPS satellites visibility.



Description

SA 30 desktop adapter is designed for using of TPH 700 TETRAPOL hand portable radio in combined operation. The first usage is dispatcher station with ease of use for dispatcher. The second usage is hand portable radio that can be taken away from dispatcher's workplace.

SA 30 adapter can be operated only with external antenna.

Features

- Speaker Mic
- Loud listening to the speaker integrated in the adapter
- TPH 700 terminal charging
- TNC connector for connection of external antenna (fixed base, magnetic or miniflex)
- TX operation and 12V power supply optical indication
- D-sub connector for data transmission via RS 232 serial interface

Description

GPM 39 hand speaker / mic with built-in GNSS receiver is designed for TPH 700 TETRAPOL hand radio terminal inserted in mobile adapter.

The device enables voice communication of mobile participant within TETRAPOL radio network and tracking of radio terminal position in automatic tracking systems (AVL). GNSS receiver analyses signals of GPS and GLONASS systems.

GPM 39 is equipped with speaker, microphone, PTT button, magnetic holder, connector for external earphone connection, optical and acoustic indication of connection in TETRAPOL system.

Optical indication of connection – established connection is indicated by red LED after pressing PTT button. User can disable this function, if necessary.

Acoustic indication of connection – three different types of acoustic indication can be set up by user: classic mode, mode with indication of connection into network or silent mode without acoustic indication.

Yellow button is designed for switching on white light (torch).

GPM 39 can be also connected via adapter to BIV G2 (older type of G2 hand terminal).



Magnetic holder
of speaker mic



Designed for TPH 700 terminals
in mobile adapter

Technical Specification

| Type | GPM 39 | | |
|--|-------------------|-------------------|------|
| GNSS receiver | GPS + GLONASS | | |
| Position accuracy | m | 3 * | |
| GNSS sensitivity | Acquisition | dBm | -160 |
| | Tracking | dBm | -165 |
| Acquisition time | Cold start | s | 34 |
| | Hot start | s | 3 |
| Power consumption | GNSS receiver on | mA | 25 |
| | GNSS receiver off | mA | 5 |
| Operating temperature range / Ingress protection | °C | -20 ÷ +55 / IP 54 | |
| Weight | kg | 0,2 | |
| Dimensions w × h × d | mm | 62 × 72 × 35 | |

* Position accuracy depends on GPM 39 receiver position and on GPS satellites visibility.



Magnetic holder
of speaker mic

Designed for TPH 700 terminals
in mobile adapter

Description

MR 39 hand speaker / mic is designed for TPH 700 TETRAPOL hand radio terminal inserted in mobile adapter.

MR 39 is equipped with speaker, microphone, PTT button, magnetic holder, connector for external earphone connection, optical and acoustic indication of connection in TETRAPOL system.

Optical indication of connection – established connection is indicated by red LED after pressing PTT button. User can disable this function, if necessary.

Acoustic indication of connection – three different types of acoustic indication can be set up by user: classic mode, mode with indication of connection into network or silent mode without acoustic indication.

Yellow button is designed for switching on white light (torch).

MR 39 can be also connected to BIV G2 (older type of G2 hand terminal) via adapter.

RX-99 / USB

RX-99 / RS 232

DX-105



RX-99 / USB

RX-99 / RS 232

DX-105

Description

RX-99 / USB data cable is designed for data transmission between EADS TPH 700 terminal and personal computer by USB serial interface.

RX-99 / RS 232 data cable is designed for data transmission between EADS TPH 700 terminal and personal computer by RS 232 serial interface.

DX-105 programming cable is designed for EADS TPH 700 terminal programming.

RCK 100 063

Description

Adapter BNC/G2 is designed for connection between TETRAPOL G2 handheld and external antenna or measurement device with BNC connectors.



RCK 100 119

Description

Adapter BNC/G3 is designed for connection between TETRAPOL EADS TPH 700 handheld and external antenna or measurement device with BNC connectors.





S-94 T



S-94



S-92



S-97



SL

TSL



S-98

Universal connecting earphone sets

Example of sets labelling

G2 earphone set type **SL-94** consist of **S-94** earphone and **SL** set.

TPH 700 earphone set type **TSL-94** consist of **S-94** earphone and **TSL** set.



Rotating clip

Designed for G2
TETRAPOL terminals

Description

MR 01 hand speaker / mic for G2 terminals of TETRAPOL system is equipped with speaker, microphone, PTT button, rotating clip, connector for external earphone connection and acoustic indication of connection in TETRAPOL system.

Acoustic indication of connection – three different types of acoustic indication can be set up during production according to customer's requirement: classic mode, mode with indication of connection into network or silent mode without acoustic indication.



Rotating clip



Designed for G2
TETRAPOL terminals

Description

MR 07 hand speaker / mic for G2 terminal of TETRAPOL system is equipped with speaker, microphone, PTT button, rotating clip, connector for external earphone connection, optical and acoustic indication of connection in TETRAPOL system.

Optical indication of connection – established connection is indicated by red LED after pressing PTT button.

Acoustic indication of connection – three different types of acoustic indication can be set up during production according to customer's requirement: classic mode, mode with indication of connection into network or silent mode without acoustic indication.

It is also possible to select one of the following functions for yellow button (TL) during production: end call, emergency or keying.



Description

BL 01D **bluetooth data interface** is designed for data transmission between EADS (MATRA) G2 hand terminal and data terminal equipment (smartphone, tablet, PC).

It can be used as a wireless replacement of data cable RMX-99.



Technical Specification

| Type | BL 01D | |
|---------------------|----------------------------|-------------|
| Power supply | from hand terminal battery | |
| Power consumption | mA | 23 |
| Range | m | max. 10 |
| Operating frequency | MHz | 2400 ÷ 2480 |
| Maximum RF power | dBm | -20 ÷ +4 |



Anchoring pin
for G2 terminal – LOW
RCF 200 032

Suitable for low batteries. Not
suitable for Beluga batteries
due to their dimensions.

Anchoring pin
for G2 terminal – Beluga II
RCF 200 070

Suitable for Beluga I, Beluga II
batteries and low batteries.



Leather holder
RCF 100 022



Separable
leather holder
RCF 100 021



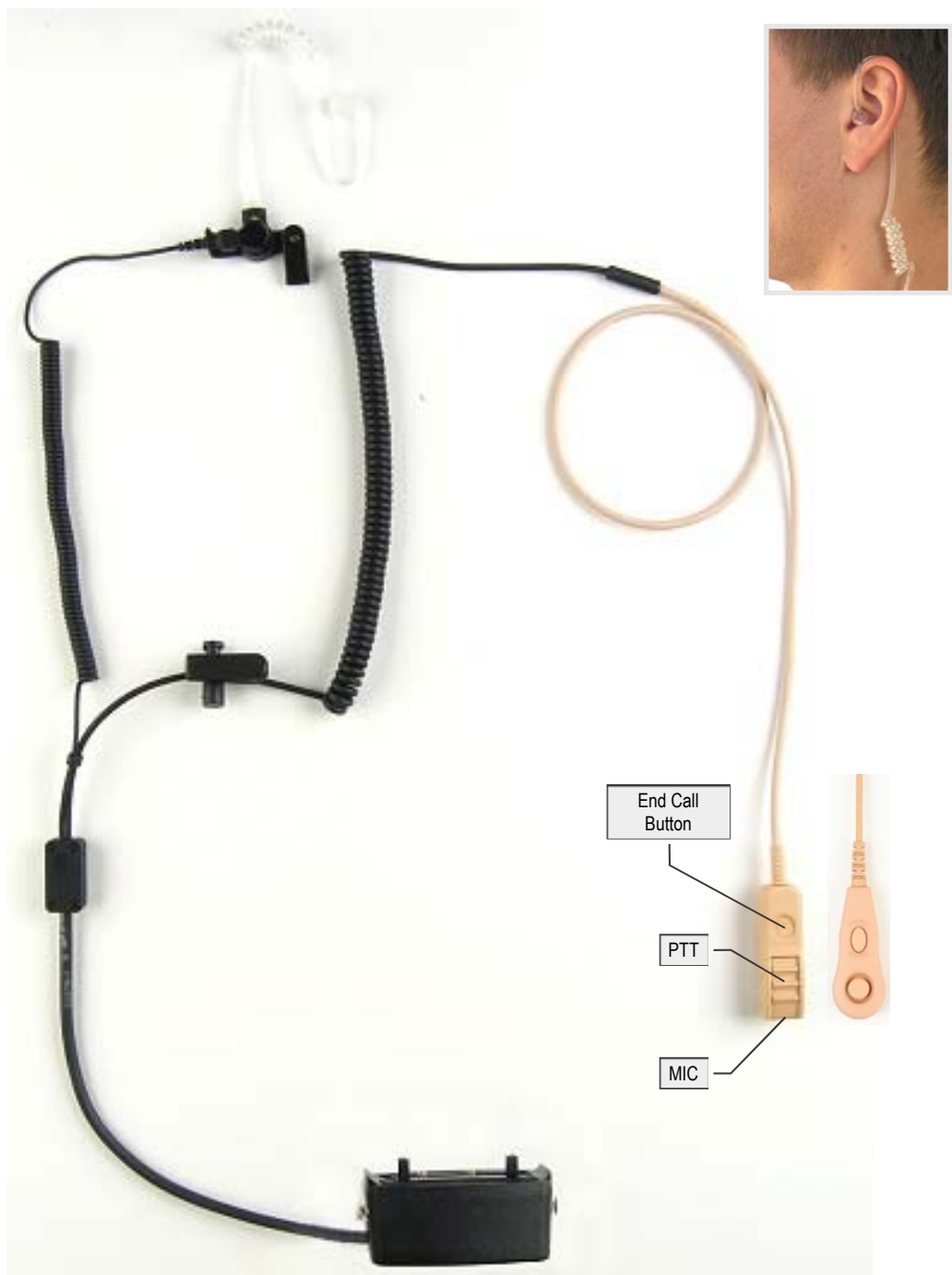


Designed for G2
TETRAPOL terminals

Description

Skin-coloured VIP-22 headset kit is designed as hidden radio accessory that is not visible under clothes.

- PTT button with integrated microphone in palm, hidden earphone.
- Button for switching ON and OFF connection.
- Acoustic indication of keying and connection in TETRAPOL system.



Designed for G2 TETRAPOL terminals

Description

VIP-23 headset kit is designed as **hidden radio accessory** that is not visible under clothes.

- Skin-coloured PTT button with integrated microphone in palm, hidden earphone.
- Button for switching ON and OFF connection.
- Acoustic indication of keying and connection in TETRAPOL system.



RMX-99 / RS 232



RMX-99 / USB

Description

RMX-99 / RS 232 data cable is designed for data transmission between EADS G2 terminal and personal computer by RS 232 serial interface.

RMX-99 / USB data cable is designed for data transmission between EADS G2 terminal and personal computer by USB serial interface.

Description

AG-2 battery is designed for use with TETRAPOL G2 hand terminals and original chargers supplied by EADS (former MATRA).

Battery has an optical indication of current battery charging condition. It is suitable especially for G2 terminals without display.

Current battery charging condition (25%, 50%, 75% and 100%) is indicated by the LED diode after pressing "TEST" button.

Battery is delivered in storage mode where electronics is disconnected and battery cannot be discharged. Battery in storage mode communicates neither with terminal nor with charger. Battery is putting into operation by first pressing of the "TEST" button.

Battery is delivered in scratch resistant plastic box.



Back side of battery



Test of battery charging condition



Designed for G2 TETRAPOL terminals

Technical Specification

| Type | AG-2 / 2100 | |
|--|-------------|---------------|
| Capacity | mAh | 2100 |
| Dimensions w x h x d | mm | 68 x 105 x 17 |
| Weight | g | 158 |
| Storage temperature range till 1 year | °C | -20 ÷ +35 |
| Storage temperature range till 90 days | °C | -20 ÷ +45 |
| Storage temperature range till 30 days | °C | -20 ÷ +55 |



Back side of battery

Description

AG-2-NL battery is designed for use with TETRAPOL G2 hand terminals and original chargers supplied by EADS (former MATRA).

Battery is delivered in scratch resistant plastic box.

Technical Specification

| Type | AG-2-NL / 2100 | |
|--|----------------|---------------|
| Capacity | mAh | 2100 |
| Dimensions w × h × d | mm | 68 × 105 × 17 |
| Weight | g | 158 |
| Storage temperature range till 1 year | °C | -20 ÷ +35 |
| Storage temperature range till 90 days | °C | -20 ÷ +45 |
| Storage temperature range till 30 days | °C | -20 ÷ +55 |

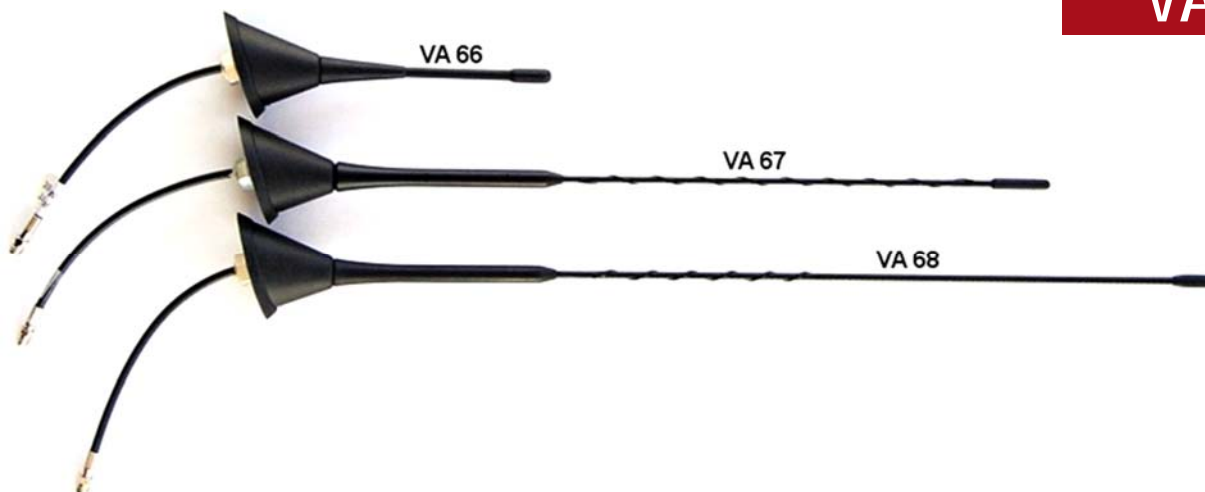


Designed for G2
TETRAPOL terminals

VA 66

VA 67

VA 68



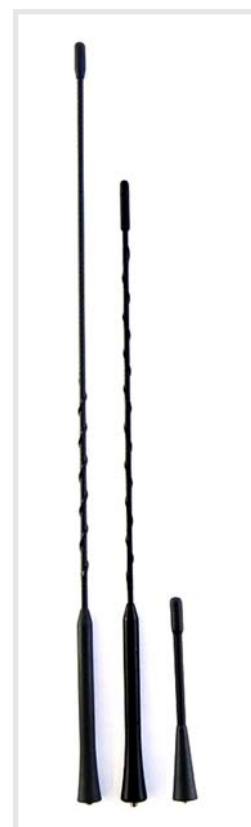
Description

VA 66, VA 67, VA 68 vehicle antennas are designed for assembly on car roof. Antennas are designed for vehicle radios in radio network of TETRAPOL system in frequency band from 380 to 395 MHz.

Antenna bases are identical therefore antenna whips are exchangeable.

Technical Specification

| Type | | VA 66 | VA 67 | VA 68 |
|----------------------------|----------|---------------------------------|-------|---------------|
| Frequency range | MHz | 380 ÷ 395 | | |
| Gain | dBi | 2 | | 5 |
| Radiation pattern | | omnidirectional | | |
| Polarization | | vertical | | |
| Length of antenna radiator | | $\lambda / 4$ | | $5/8 \lambda$ |
| Impedance | Ω | 50 | | |
| VSWR | | < 1.8 | | < 1.5 |
| Maximum input power | W | 20 | | |
| Whip tilt angle | ° | 74 | | |
| Length of whip | mm | 137 | 410 | 511 |
| Weight with antenna base | kg | 0.08 | 0.1 | |
| Material of antenna | | plastic, galvanized iron, brass | | |
| Mounting hole | mm | $\varnothing 19 (15 \times 15)$ | | |
| Connector type | | FME (3,5 m TNC, BNC) | | |



Antenna whips

Note: VA 66, 67, 68 vehicle antennas are terminated with coaxial cable length of 0.3 m with FME female connector. They are supplied with jumper cable length of 3.5 m with FME male connector on the first end and BNC male or TNC male connector on the other end according to the order.

Description

VAS 39 vehicle antenna is designed for radios in PEGAS and SITNO radio networks of TETRAPOL system in frequency band from 380 to 395 MHz.

Antenna is designed for assembly on windscreen or rear window in car according to mounting instructions.

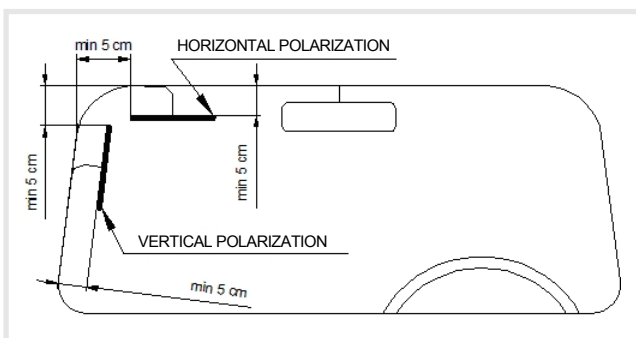
Antenna is suitable for hidden assembly.

Technical Specification

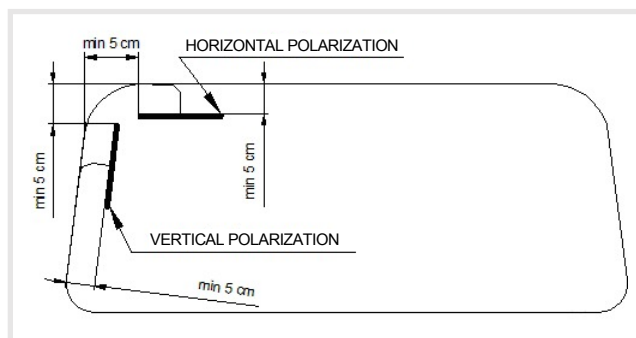
| Type | VAS 39 | |
|----------------------------------|----------|-----------------|
| Frequency range | MHz | 380 ÷ 395 |
| Radiation pattern | | omnidirectional |
| Impedance | Ω | 50 |
| VSWR | | < 2 |
| Maximum input power | W | 10 |
| Length of coaxial cable (RG 174) | m | 3.5 |
| Weight | g | 50 |
| Dimensions d × v | mm | 270 × 11 |
| Connector type | | TNC, BNC, FME |



Note: VAS 39 antenna is terminated with coaxial cable length of 3.5 m with TNC male, BNC male or FME female connector according to the order.



Scheme of antenna location on windscreen



Scheme of antenna location on rear window

Description

- parallel operation of mobile transceiver and car radio FM with one mobile antenna
- extremely small dimension
- very easy and quick installation



Technical Specification

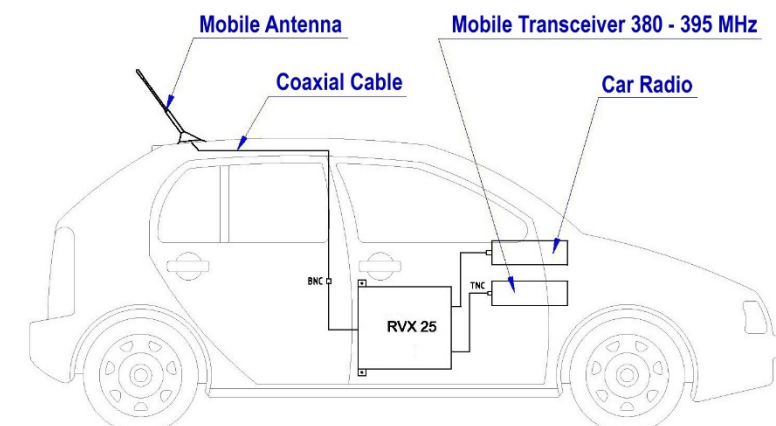
| Type | | | RVX 25 |
|-----------------------------|-----------------------|-----|---|
| Frequency band | Transceiver (RDST) | MHz | 380 ÷ 395 |
| | Car radio (AUTORÁDIO) | MHz | 87 ÷ 108 |
| Maximum input power | | W | 30 |
| Insertion loss | Transceiver (RDST) | dB | ≤ 1.5 |
| | Car radio (AUTORÁDIO) | dB | ≤ 1.0 |
| Isolation | | dB | ≥ 30 |
| Impedance | | Ω | 50 |
| Operating temperature range | | °C | -30 ÷ +70 |
| Dimensions w × h × d | | mm | 60 × 55 × 24 |
| Weight | | g | ~ 150 |
| Connectors type | Transceiver | | TNC male, cable length 1 m |
| | Car radio | | coax. connector for car radio, cable length 1 m |
| | Antenna | | BNC female, cable length 0,2 m |

Recommended accessories:

- vehicle antennas for TETRAPOL VA 66, VA 67, VA 68
- vehicle antenna ŠKODA / TETRAPOL – RCP 300 006



Antenna ŠKODA / TETRAPOL – RCP 300 006



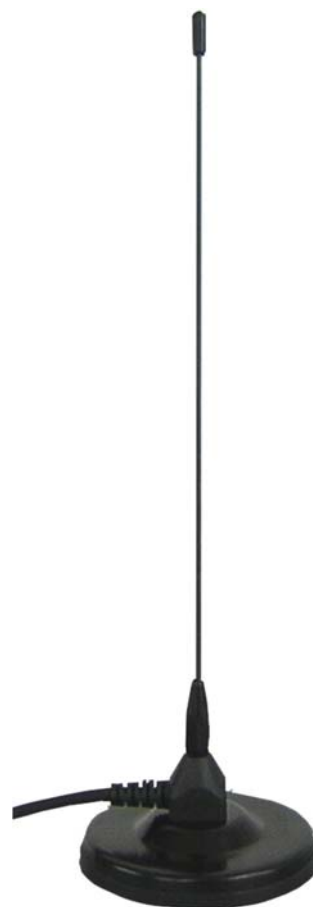
Description

VMA 390 vehicle antenna is whip antenna with magnetic holder designed for assembly on car roof or metal parts which create antenna counterpoise.

Antenna is designed for systems in frequency band from 380 to 395 MHz.

Technical Specification

| Type | VMA 390 | |
|----------------------------|---------------------------------|-----------|
| Frequency band | MHz | 380 ÷ 395 |
| Gain | dBi | 2 |
| Radiation pattern | omnidirectional | |
| Length of antenna radiator | $\lambda / 4$ | |
| Polarization | vertical | |
| Impedance | Ω | 50 |
| VSWR | < 1.5 | |
| Maximum input power | W | 30 |
| Material | brass, plastic, stainless steel | |
| Weight with cable | kg | 0.65 |
| Length of cable | m | 3.5 |
| Connector type | BNC male or TNC male | |



Note:

VMA 390 antenna is standardly terminated with coaxial cable length of 3.5 m with BNC male or TNC male connector. Antenna can be supplied with other cable length and other connectors according to customer's requirement.

BO 321

Description

Omnidirectional base antenna BO 321 is designed for mobile and data radio networks.

Technical Specification

| | | |
|---------------------------------------|---|------------|
| Type | BO 321 | |
| Frequency range | MHz | 380 ÷ 430 |
| Gain in front / back direction * | dBi | 3,2 / -4,2 |
| Gain in side direction (90°, 270°) ** | dBi | 3,7 |
| Radiation pattern (* / **) | offset (omnidirectional with shift axis) / elliptic | |
| Maximum input power | W | 200 |



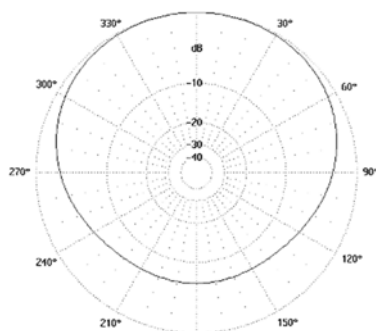
* Distance (L) from the mast $\lambda/4$ (~ 195 mm)

** Distance (L) from the mast $\lambda/2$ (~ 390 mm)

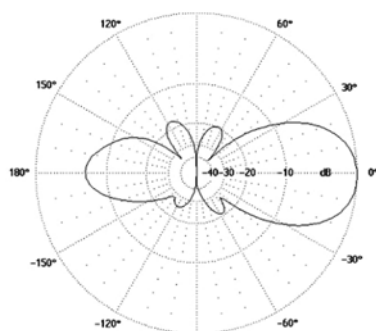
BG 322

Description

Omnidirectional base gained antenna BG 322 is designed for mobile and data radio networks.



Radiation pattern – H plane



Radiation pattern – E plane

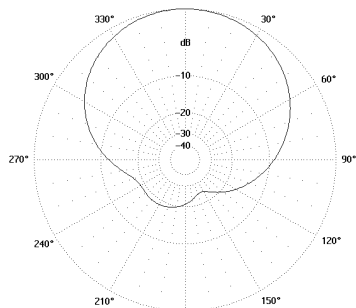


Technical Specification

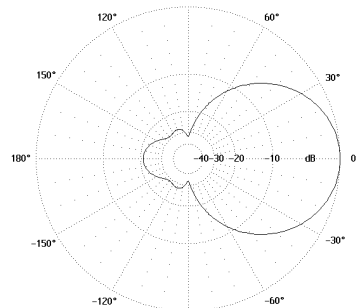
| | | |
|-----------------------------|--|-----------|
| Type | BG 322 | |
| Frequency range | MHz | 380 ÷ 425 |
| Gain in front direction | dBi | 8 |
| Radiation pattern – H plane | offset (omnidirectional with shift axis) | |
| Beamwidth – E plane | ° | 30 ÷ 40 |
| Maximum input power | W | 150 |

Description

Directional base antennas are designed for mobile and data radio networks.

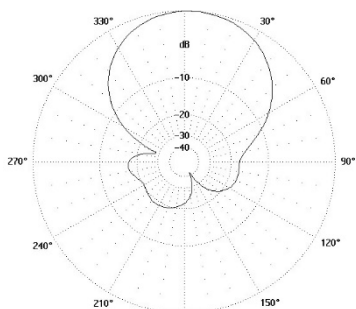
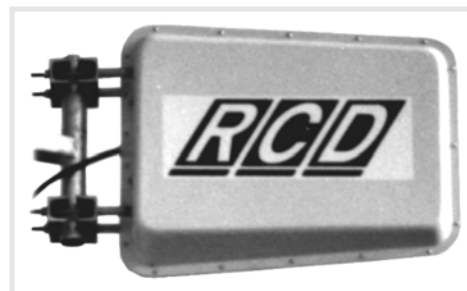


Radiation pattern – H plane

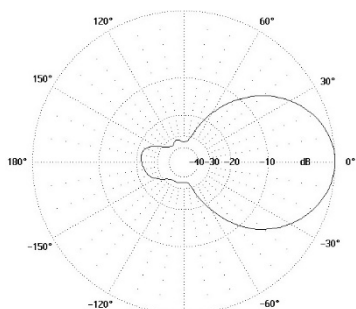


Radiation pattern – E plane

BD 310

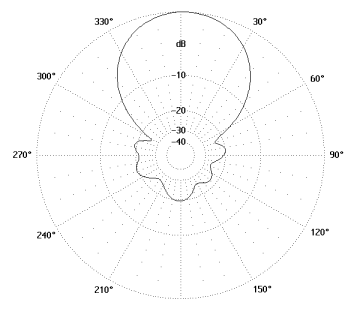
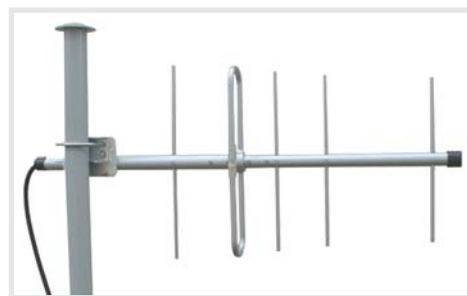


Radiation pattern – H plane

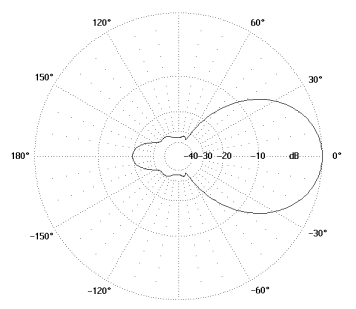


Radiation pattern – E plane

BD 311

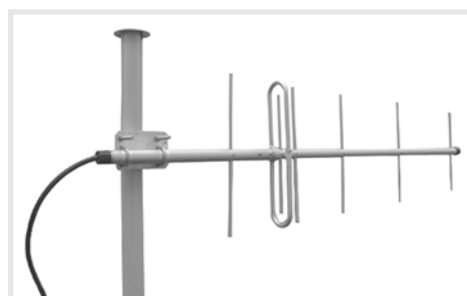


Radiation pattern – H plane



Radiation pattern – E plane

BD 312



Technical Specification

| Type | | BD 310 | BD 311 | BD 312 |
|---------------------|-----|-----------|-----------|-----------|
| Frequency band | MHz | 380 ÷ 400 | 380 ÷ 395 | 380 ÷ 395 |
| Gain | dBi | 8,5 | 9 | 11 |
| Front-to-back ratio | dB | 20 ÷ 26 | 18 ÷ 27 | 17,5 ÷ 24 |
| Maximum input power | W | 150 | 200 | 200 |



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