



Applications

- TETRA / TETRAPOL coverage enhancement
- Outdoor : Mountainous areas
- Indoor : Confined areas

Key Features

- Output power +37 dBm
- Echo canceller (optional)
- Outdoor case IP65
- Wall- or mast-mounting
- Antenna and radiating cable compliant
- IP Monitoring by modem GPRS, GSM-R or TETRA

Benefits

- Cost effective alternative to BTS
- Only one equipment for TETRA & TETRAPOL
- Easy remote monitoring

Contact us

- protel@protel.it
- www.protel.it

Solution for TETRA coverage

AIR Repeater™ TETRA RF/RF High Single



To ensure TETRA coverage everywhere

The "AIR Repeater™ TETRA/TETRAPOL RF/RF" is designed to enhance outdoor coverage by cell extension as a cost-effective alternative to TETRA Base Station. In addition, it ensures continuity of service for TETRA / TETRAPOL radio mobile network in the infrastructures inadequately covered or not, such as tunnels, industrial buildings or warehouse, shopping centers, hospitals, subway parking, etc...

Thanks to the gain limiter, the equipment is able to operate with mobile phones near or far from the repeater without risk of saturation.

Whole-integrated in an outdoor case, this repeater can be easily installed anywhere.

The equipment can be configured and monitored with the embedded WEB/SNMP server. Remote access is available through GPRS or TETRA modem. An optional NMS is available to monitor several systems from a centralized monitoring center.

The echo cancellation algorithm *AIR Repeater™* (Advanced Insulation Repeater) guarantees the features compliance for operation at maximum gain of 90 dB and antenna insulation of 60 dB.

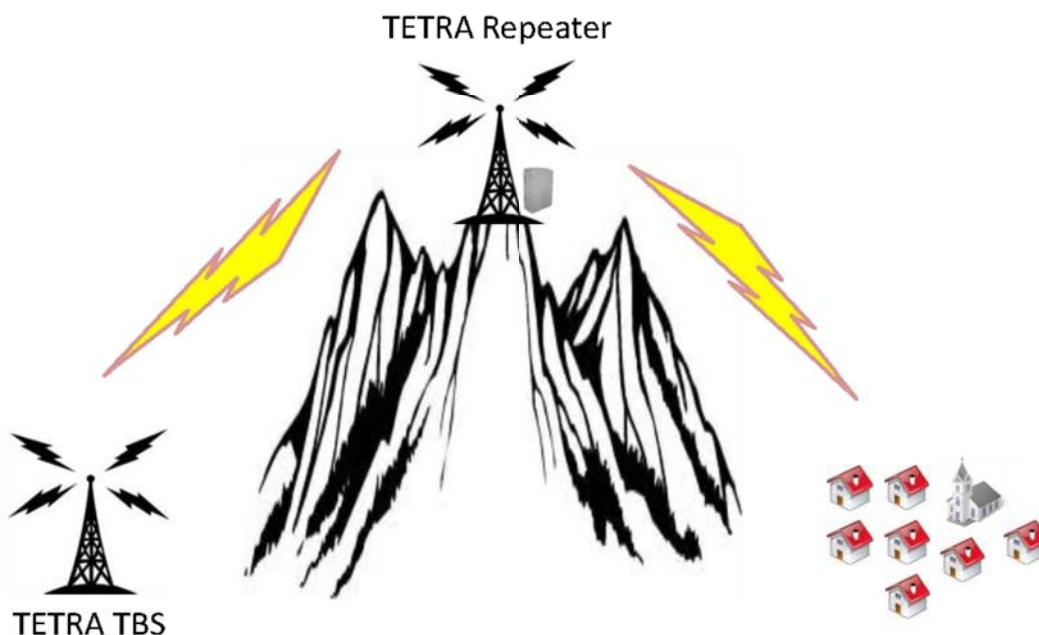


215 – AIR Repeater™ TETRA RF/RF High Single – ed1 – 10/2011

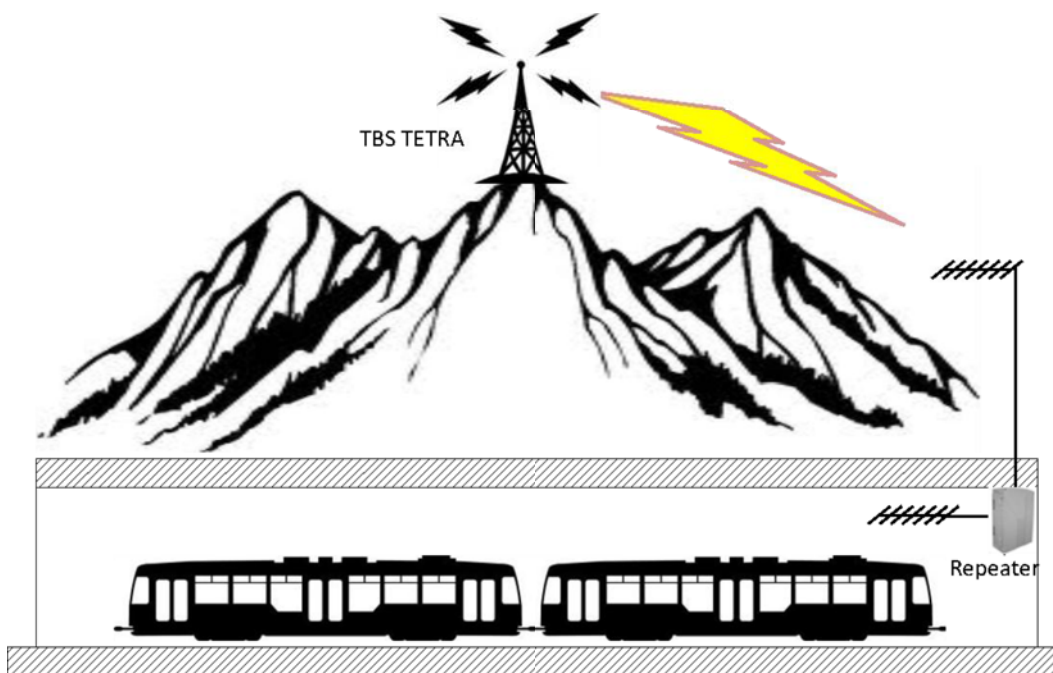
Quality Model FP1004D / ed 27 / 07 / 2011

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Example of outdoor usage



Example coverage of small rail tunnel





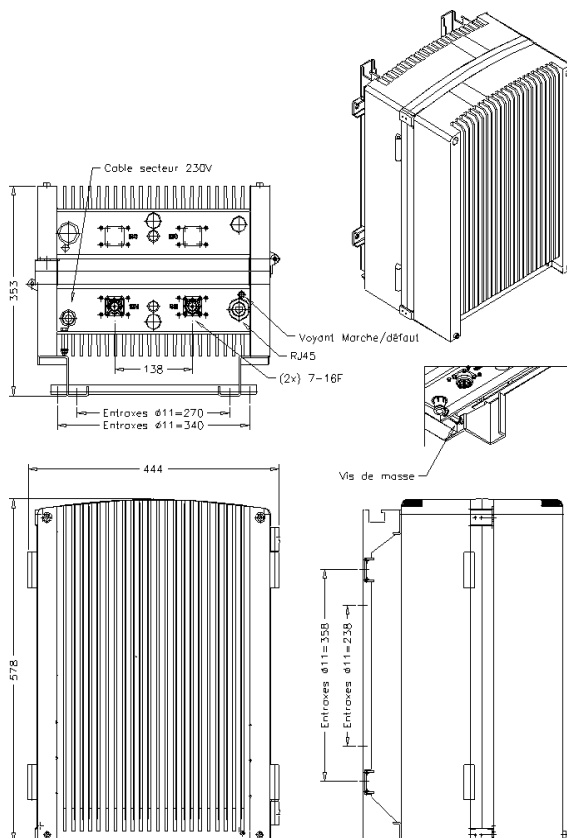
Solution for TETRA coverage

AIR Repeater™ TETRA RF/RF High Single






RF Features		<u>Up - Link (RX)</u>	<u>Down - Link (TX)</u>
Frequency range (to specify when ordering)		380 - 385 MHz 385 - 390 MHz 410 - 415 MHz 415 - 420 MHz 450 - 455 MHz 455 - 460 MHz	390 - 395 MHz 395 - 400 MHz 420 - 425 MHz 425 - 430 MHz 460 - 465 MHz 465 - 470 MHz
Bandwidth (to specify when ordering)		From 1 to 5 MHz (Adjusted SAW filter)	
Gain		Adjustable from 50 dB to 80 dB	
Dynamic gain range		30 dB (step 1 dB)	
Noise factor		≤ 6 dB	
Nominal output power	1 carrier	+ 17 dBm	+ 37 dBm
	2 carriers	+ 14 dBm	+ 34 dBm
	4 carriers	+ 11 dBm	+ 31 dBm
	8 carriers	+ 8 dBm	+ 28 dBm

Cabinet Features	
Power supply voltage	Integrated 230 VAC power supply
Power consumption	120 W
Dimensions	H 578 mm x P 353 mm x L 444 mm
Weight	29 kg
Connectors	N female
Rating class	IP65
Temperature range	- 25°C / + 55°C
Cooling system	Natural convection cooling with heat sink
Monitoring	Dry Loop Green & Red LED WEB, SNMP

Mounting Plan



Ordering Code	Designation
Ref 603 091	Repeater RF/RF High Power TETRA/TETRAPOL - IP Monitoring
Ref 603 093	Repeater RF/RF High Power TETRA/TETRAPOL - IP Monitoring - Circulator on DL access (for radiating cable application)
Ref 603 100	Repeater RF/RF High Power TETRA/TETRAPOL - IP Monitoring - Echo-canceller

Options	
<p>Cabin protection</p> 	<ul style="list-style-type: none"> ✓ Protection against Sunlight and Rain ✓ Compatible with all SELECOM Repeaters ✓ Easy installation ✓ Support for laptop or measuring device
<p>Electrical Case</p> 	<ul style="list-style-type: none"> ✓ Outdoor case ✓ Cost effective solution ✓ Isolation Transformer ✓ GFCI ✓ Re-starter ✓ Service Outlet ✓ CE compliant ✓ Custom design on request
<p>GPRS Modem</p> 	<ul style="list-style-type: none"> ✓ For the remote control via GPRS network
<p>NMS (Network Management System)</p> 	<ul style="list-style-type: none"> ✓ NMS software manages a complete network of different ✓ Screens with complete status and reports ✓ Location on a map of each equipment ✓ SMS, EMAIL alerts ✓ Equipments control in case of needing
<p>Solar panels</p> 	<ul style="list-style-type: none"> ✓ Free Energy ✓ Battery for autonomy in case of lack of sunlight ✓ Automatic relay to standard power supply ✓ Ecological solution
<p>Couplers</p>	<ul style="list-style-type: none"> ✓ Balanced couplers (1 to 2, 1 to 3, 1 to 4) ✓ Unbalanced couplers (1/3-2/3; 1/5-4/5; 1/10-9/10) ✓ For all types of antenna combinations
<p>Antennas</p>	<ul style="list-style-type: none"> ✓ Donor antenna ✓ Wall mounted antennas indoor ✓ Ceil mounted antennas indoor
<p>Feeders</p>	<ul style="list-style-type: none"> ✓ Coaxial feeders ✓ Radiating cables