



Application

- TETRA / TETRAPOL coverage enhancement
- Safety networks
- Confined areas difficult to cover

Key Features

- Up to 8 active antennas
- Up to 10 dBm output power for each antenna
- Gain Limiter
- Outdoor case IP65
- IP Monitoring by modem GPRS, GSM-R or TETRA

Benefits

- Optimised coverage without optical fiber
- Every corner can be covered

Contact us

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

Solution for Indoor TETRA coverage

TETRA / TETRAPOL Multi-Repeater RF -RF



To ensure TETRA coverage everywhere

The "TETRA / TETRAPOL Multi-Repeater RF-RF" ensures continuity of service for TETRA or TETRAPOL radio mobile network in the infrastructures inadequately covered or not, such as tunnels, industrial buildings or warehouse, shopping centers, hospitals, subway parking, etc...

It consists of a master repeater, a divider 1 to 4 and up to 8 RF boosters remotely supplied and scattered throughout the infrastructure to cover. Each booster can emit up to 10 dBm RF power to one or several local antennas, or to radiating cables.

The flexible design enables an entirely appropriate coverage in infrastructure by focusing on small points of transmission and taking into account the architectural features that create micro-shadow areas that are particularly difficult to cover.

The equipment can embed a monitoring module with WEB and SNMP server. The remote connectivity is made by GPRS or TETRA modem.



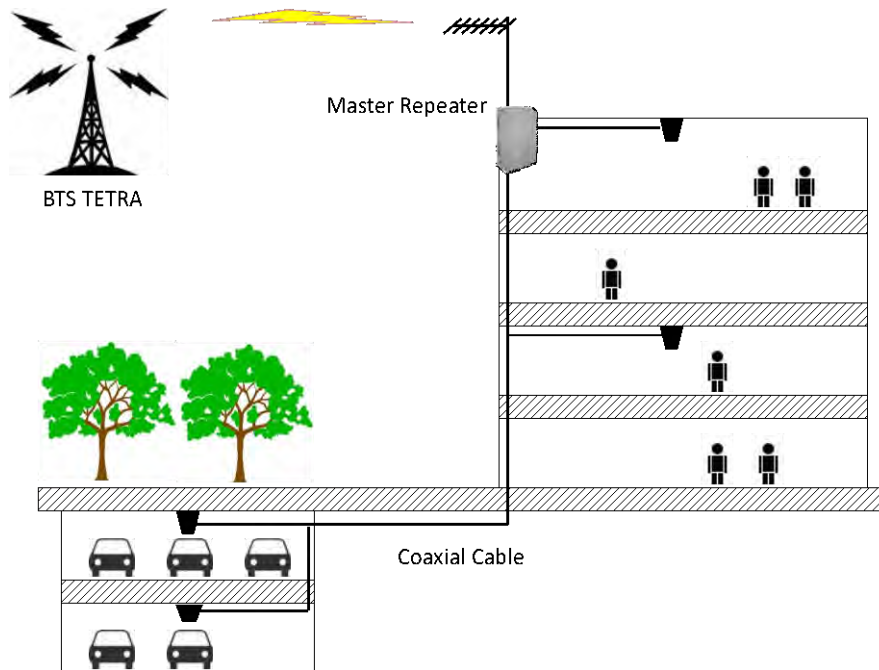
196 – TETRA / TETRAPOL Multi Repeater RF-RF – ed8 - 10/2011

Quality Model FP1004D / ed 27 / 07 / 2011

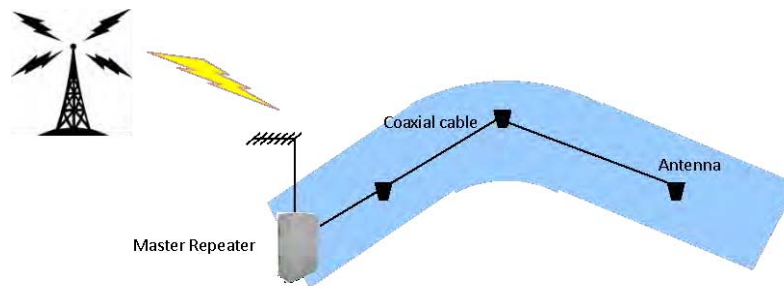
DISTRIBUTORE PER L'ITALIA :

PROTEL S.a.s. – Via Magellano, 3 A/B int. 6 – 20090 Cesano Boscone (MI) Tel.: 02.4860.0265 - Fax: 02.4860.0871

Example coverage of a building and an underground parking








Example coverage of a tunnel curve



Ordering Code	Designation
Ref 019 725	Master Repeater
Ref 019 830	Booster
Ref 019 905	Divider 1 to 4
Ref 602 669	Coupler 1/10- 9/10 (DC pass on 9/10, DC block on 1/10)

Master Repeater 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)			
Nominal output power	1 carrier 2 carriers 4 carriers 8 carriers	+ 17 dBm + 14 dBm + 11 dBm + 8 dBm	+ 17 dBm + 14 dBm + 11 dBm + 8 dBm		
Noise factor		≤ 6 dB			
Power supply voltage		Integrated 230 VAC power supply			
Power consumption		72 W			
Dimensions		224 × 429 × 582 mm			
Weight		28 kg			
Connectors		N female			
Rating class		IP65			
Temperature range		-25°C to +55°C			
Cooling system		Natural convection cooling with heat sink			
Remote supply of boosters		12V / 4A			
Monitoring		Dry Loop / WEB, SNMP / Green & red LED			

Divider 1 to 4 Features 	<u>Up - Link (RX)</u>	<u>Down - Link (TX)</u>
Frequency range	380 – 470 MHz	
Number of ways	4	
Power supply voltage	12 VDC from the repeater Remote supply of each booster by switch	
Dimensions	218 mm x 138 mm x 67 mm	
Weight	1,6 kg	
Alarms to the repeater	Monitoring of consumption of each booster Red-green LED for each way	
Power consumption	30 W	
Cooling system	Natural convection	
Rating class	IP 34	
Connectors	N female	
Temperature range	- 30°C to +45°C	

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>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