CSR438

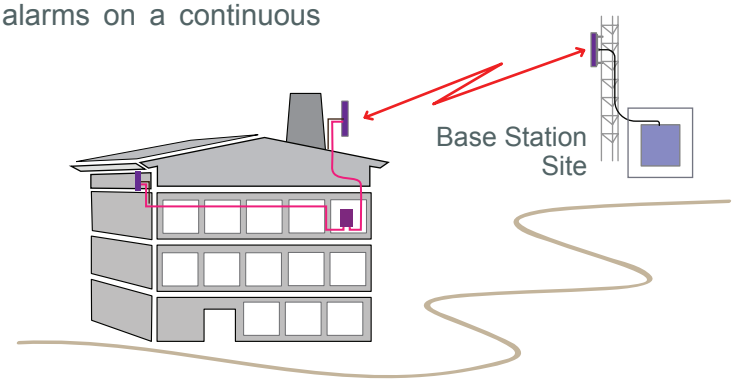
DIGITAL CHANNEL SELECTIVE REPEATER

- Large repeater coverage footprint due to high output power and gain
- Very low propagation delay leading to higher security, resilience and availability of information
- Easy system implementation with build-in commissioning tools
- Time-slot based ALC
- Supervision available over TETRA modems
- Remotely upgradeable for TEDS

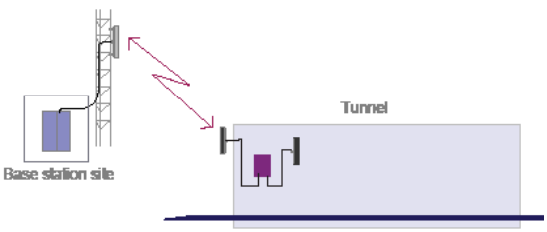
The CSR438 provides quick, cost-effective and secure radio coverage in any TETRA network and can handle up to eight TETRA carriers. Through the use of the CSR438 an operator can easily expand a base station's service area by filling in coverage holes caused by terrain, buildings or tunnels.

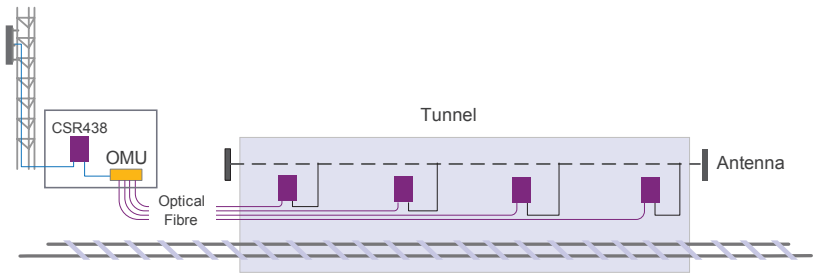
The wireless interface permits the operator to remotely configure RF parameters as well as monitor alarms on a continuous basis.

The CSR438 can be used as a gap filler, filling in coverage holes caused by terrain or buildings.



The CSR438 can also be used to provide coverage in shorter tunnels. Longer tunnels can be covered by connecting the repeater to an OMU (Optical Master Unit) that feeds a number of fiber fed repeaters.





SPECIFICATIONS

ELECTRICAL SPECIFICATIONS	Uplink (UL)	Downlink (DL)
Standard frequency ranges available (MHz)	380-385 385-390 410-415 415-420 450-455 455-460	390-395 395-400 420-425 425-430 460-465 465-470
Number of channels	up to 8	
Channel frequency	any TETRA channel	
Impedance	50 Ω	
Noise figure	4.5 dB at maximum gain	
Group delay	<11 µs (14 µs high selectivity)	
ALC	Time-slot based	
Selectivity	According to ETSI TS 101-789-1	
Output power/carrier	+36 dBm (1 carrier) +33 dBm (2 carriers) +30 dBm (4 carriers)	
Gain	55 to 85 dB in 1 dB steps	
Third Order Intercept	+68 dBm, typical	
Spurious Emissions from RF port	< -36 dBm	
Intermodulation Products	-60 dBc (according to TS 101-789-1)	
Remote control and alarm supervision	Via modem GSM, GSM-R, TETRA, PSTN, via Ethernet and GPRS	
Power Requirements	230VAC 50Hz or 110VAC 60Hz or -48 VDC	
Power Consumption	180 W, typical	
EXTERNAL CONNECTION		
RF Ports	7/16 Female	
External alarm inputs	4	
Alarm relay output	Dry contact	
MECHANICAL SPECIFICATION		
Dimensions (h x w x d)	540 x 350 x 150 mm	
Enclosure	Aluminium (IP65)	
Weight	22 kg	
Cooling	Convection	
Mounting	Wall mounted	
ENVIRONMENTAL SPECIFICATION		
Operating Temperature	-25˚C to + 55˚C	
Storage	-30˚C to + 70˚C	
Humidity	ETSI EN 300 019-2-4 (see compliance below)	
Complies with	R&TTE Directive including, EN 301 489-18 ETSI TS 101 789-1, EN 60 950	

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About Axell Wireless

Axell Wireless is a leading developer and supplier of high-quality RF coverage solutions designed to maximize wireless network coverage in difficult RF environments and complex settings. The company specializes in extending RF radio coverage to rural areas, office buildings, subways, tunnels and shadowed areas. The Axell Wireless coverage solution supports all major mobile technologies and standards. For more information, visit www.axellwireless.com or phone + 44 (0) 1494 777000