D-CSR 3604

19" Rack mount

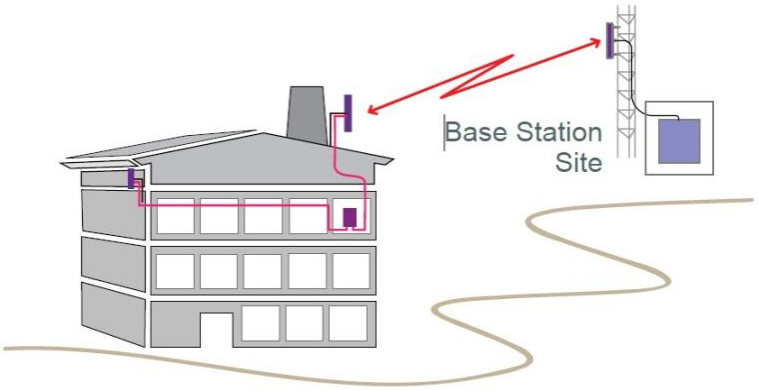
Digital channel and band selective repeater for TETRA

Key features:

Large repeater coverage footprint due to high output power and gain

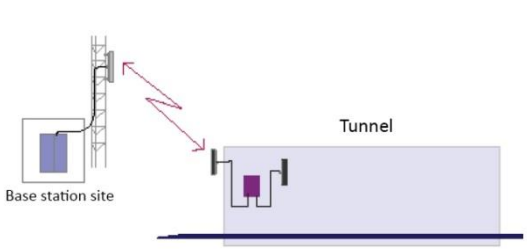
- Dual personalities – programmable band- or channel selective mode
- Very low propagation delay leading to higher security, resilience and availability of information
- Easy system implementation with built-in commissioning tools
- Time-slot based ALC minimizes noise contribution
- Supervision available over various wireless modems
- Built in spectrum analyser
- Separate TX/RX Antenna ports

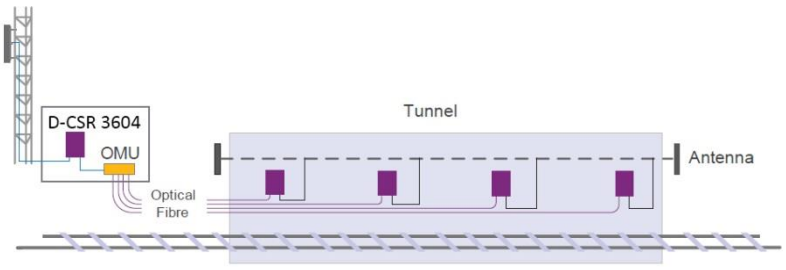
The D-CSR 3604 provides quick, cost-effective and secure radio coverage in any TETRA network and can handle up to eight TETRA carriers in channel selective mode or 2 sub-bands in band selective mode within the 5 MHz band. Through the use of the D-CSR 3604 an operator can easily expand a base station's 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.
Supervision is available over various wireless modems

The D-CSR 3604 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 fibre fed repeaters.





Technical specifications

Electrical specifications	Uplink (UL)	Downlink (DL)
	380-385 385-390 410-415 415-420 450-455 455-460	390-395 395-400 420-425 425-430 460-465 465-470
Duplex Spacing	10 MHz	
Number of channels (Chanel selective mode)	up to 8	
Channel frequency (Channel selective mode)	any TETRA channel, options 60kHz (high selectivity), 90kHz (low delay)	
Filter options (Band selective mode) up to 4 sub-bands	100 kHz - 5 MHz in 25 kHz steps	
Impedance	50 Ω	
Noise figure	4.5 dB at maximum gain	
Group delay (Channel selective mode)	<12µs (14 µs high selectivity)	
Group delay (Band selective mode)	<2µs at band centre for 5MHz filter; <7µs at band edge	
ALC (Channel selective mode)	Time-slot based per channel	
ALC (Band selective mode)	RMS based with frame peak hold	
Squelch* (Channel selective mode)	Settable	
Output power/carrier	+36 dBm (1 carrier), +33 dBm (2 carriers), +30 dBm (4 carriers), +27 dBm (8 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	IP-based via GSM/EDGE (850/900/1800/1900), GSM-R, UMTS, TETRA or Ethernet	
	Circuit Switched via GSM/EDGE(850/900/1800/1900), GSM-R or PSTN	
Power requirements	230VAC 50Hz or 110VAC 60 Hz or -48VDC	
Power consumption	180 W, typical	
External connection		
AC/DC Input	IEC/XLR	
RF Port connectors	N –Type Female	
External alarm inputs	4	
Ethernet port	External	
Alarm relay output	Dry contact	
Mechanical specification		
Dimensions	19” , 4U, 450mm	
Weight	< 20kg	
Cooling	Convection	
Mounting	Rack mounted	
Environmental specification		
Operating Temperature	-25˚C to + 50˚C	
Storage	-30˚C to + 70˚C	
Humidity	ETSI EN 300 019-2-4 (see compliance below)	
Complies with	R&TT E Directive including, EN 301 489-18, ETSI TS 101 789-1, EN 60 950	

* The squelch is set to -108 dBm, which ensures correct operation for most repeater system scenarios. It will open approximately 3dB below the static sensitivity in the repeater cell thus it will be open to any mobile on the cell border.

About Axell Wireless

Axell Wireless is one of the top global providers of wireless coverage solutions and the market leader in the provision of solutions for the public safety market worldwide. Our equipment has been deployed in some of the most technologically challenging environments in the world, providing coverage for tunnels, metros, buildings, stadiums and transportation systems all over the world. With its headquarters in the UK, Axell Wireless has been operating for over 40 years and has an international footprint. A proven track record combined with a reputation for providing innovative and high-quality products has made Axell Wireless a truly global player in the wireless coverage industry.