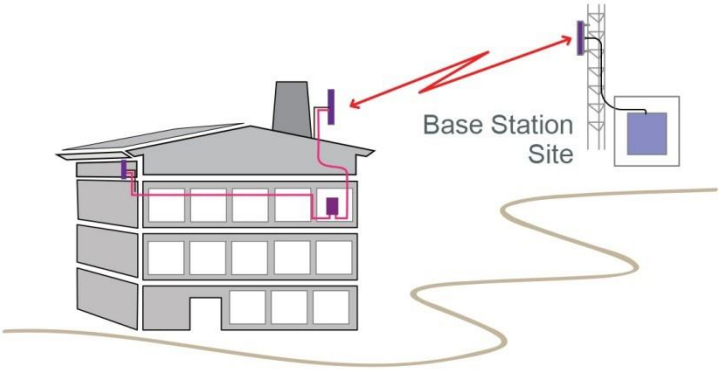
DCSR 2502 VHF

Digital Channel selective, off air repeater for VHF

Key features

- Large repeater coverage footprint due to high output power and gain
- Digital filtering for optimized selectivity and flexible bandwidth settings
- Easy system implementation with build-in commissioning tools
- Composite Downlink power 25dBm (20W HPA) to meet ETSI IMD requirements
- Supervision available through web server or SNMP over radio modems
- Remotely upgradeable for future challenges
- Dynamic ALC
- Adjustable Bandwidth, Quad Window Operation (Band selective option)
- Wall mount IP65 enclosure or 19" rack mount versions available.

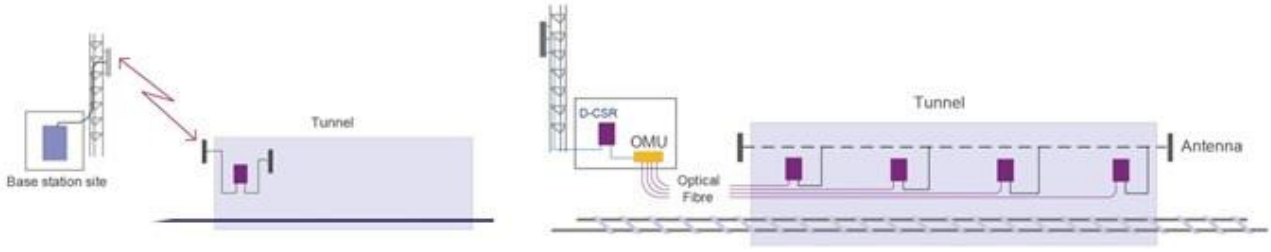
The D-CSR 2502 provides quick, cost-effective and secure radio coverage in any VHF network as well as four variable band width blocks of contiguous spectrum. Through the use of the D-CSR 2502 an operator can easily expand a base station's service area by filling in coverage holes caused by terrain, buildings or tunnels.



The wireless interface permits the operator to remotely configure RF parameters as well as monitor alarms on a continuous basis via SNMP. Supervision is available over various wireless modems

The DCSR 2502 can also be used to provide coverage in shorter tunnels.

Longer tunnels can be covered by connecting the repeater to an Axell Wireless Optical Master Unit that feeds a number of BSF 2502 fibre fed repeaters.



Technical specification

RF parameters		Downlink	Uplink
Frequency range available		138 to 174 MHz	138 to 174 MHz
Number of channels (Channel selective)		8 in both Uplink and Downlink	
Number of Passbands (Band selective)		4 in both Uplink and Downlink	
Filter Pass bandwidth (Channel selective)		12.5 kHz or 25 kHz (as standard others available)	
Filter Pass bandwidth (Band selective)		100 kHz to 5 MHz in steps of 25 kHz (7MHz overall spectrum capture)	
Duplex frequency spacing		10MHz typical with options down to 3MHz	
Noise Figure		<4 dB typical at maximum gain	
Group delay		Channel filter dependant	
ALC (Channel selective)		Time-slot based (digital systems)	
ALC (Band selective)		Composite power in band	
Impedance		50 Ω	
Ripple		± 1.5 dB	
Downlink output power – (20W PA)		+ 25 dBm composite	
Uplink output power – (5W PA)		+ 21 dBm composite	
Gain adjustment		0 to 30 dB	
Gain		65 to 95 dB in 1 dB steps	
Third Order Intercept		+ 54 dBm	
Spurious Emissions from RF port		< -36dBm ETSI compliant	
Power Requirements		110VAC 60Hz or 230VAC 50Hz or -48 VDC	
Power Consumption		170W typical	
Remote control and alarm supervision		Via modem GSM,UMTS, PSTN, via Ethernet and SNMP	
External connection			
External alarm inputs		2 external alarm inputs (NC or NO configurable)	
Alarm relay output		Dry contact (NC or NO configurable)	
Local Maintenance Terminal		USB (web interface)	
Donor/Server Port		N-female	
Modem antenna connector		N-female (wall mount), SMA-female (rack mount)	
Mechanical specification			
Dimensions W x H x D		620 mm x 420 mm x 300 mm (wall mount - most applications) (Options for larger filters & complex frequency bands) 19" - 8U - 450mm (rack mount)	
Weight		approx. 28kg	
Cooling		Convection	
Enclosure		Aluminium	
Environmental			
EMC		See RED Compliance below	
Operating Temperature		-25˚C to +55˚C	
Storage Temperature		-30˚C to +70˚C	
Humidity		0 to 95% RHNC (wall mount), ETSI EN 300 019-2-4 (rack mount)	
RED Compliance	Safety	EN 62368-1, EN 50385	
	EMC	EN 301 489-1, EN 301 489-5	
	Radio	EN 302 561	

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