



FIBRE FED REPEATERS

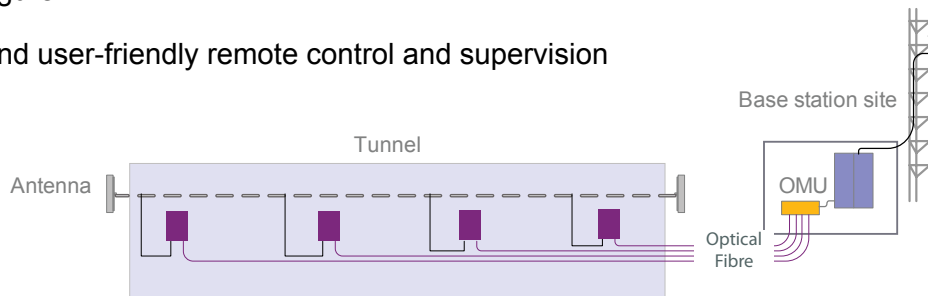
The medium power fibre fed repeater offers a quick and cost-effective means of extending coverage for indoor applications in GSM networks.

Coverage is easily extended inside a relatively large building or a tunnel by coupling of the signal from nearby a base station and then distributing the signal via fibre to one or several Channel Selective Fibre fed repeaters. These remote units can be installed up to 20 km from the base station site, offering a great flexibility when providing RF coverage in areas where off air transmission is not a preferable solution. A distributed antenna system can be used to distribute the signal throughout the area to be covered.

The high output power results in having to deploy a fewer number of sites, which in turn lowers the capital expenditures for the roll out as a whole.

PRODUCT BENEFITS

- > High output power
- > Low noise figure
- > Advanced and user-friendly remote control and supervision



CSF922	Channel Selective Fibre Fed	GSM900 Repeater	(2 channels)
CSF924	Channel Selective Fibre Fed	GSM900 Repeater	(4 channels)
CSF1822	Channel Selective Fibre Fed	GSM1800 Repeater	(2 channels)
CSF1824	Channel Selective Fibre Fed	GSM1800 Repeater	(4 channels)
CSF1922	Channel Selective Fibre Fed	GSM1900 Repeater	(2 channels)
CSF1924	Channel Selective Fibre Fed	GSM1900 Repeater	(4 channels)
CSF 922-R	Channel Selective Fibre Fed	GSM-R Repeater	(2 channels)
CSF 924-R	Channel Selective Fibre Fed	GSM-R Repeater	(4 channels)

SPECIFICATIONS

Frequency range	900 MHz (E-GSM)	900 MHz (P-GSM)	900 MHz (GSM-R)	1800 MHz (DCS)	1900 MHz (PCS)
Uplink UL	880 - 915	890 - 915	876 - 880	1710 - 1785	1850 - 1910
Downlink DL	925 - 960	935 - 960	921 - 925	1805 - 1880	1930 - 1990

Number of channels (ARFCN) 1 - 4
 Channel programming In 200 kHz Channel spacing

Output power/carrier DL

	2 Channels	4 Channels
GSM/GMSK	+37dBm	+34 dBm
EDGE/(8-PSK)	+34 dBm	+31 dBm

Gain 33 - 63 dB, adjustable, in 1 dB steps.
 Antenna connectors DIN 7/16 FC/APC
 Electrical ratings 110/230 V AC, 50/60 Hz (alt. - 48 VDC)

Power Consumption

Frequency	2 Channels	4 Channels
900 MHz	110 W	170 W
1800 & 1900 MHz	150 W	290 W

Dimensions (2 Channels) 540 x 350 x 150 mm
 (4 Channels) 540 x 350 x 220 mm
 Weight (2 Channels) 22 kg
 (4 Channels) 33 kg
 Enclosure Aluminium (IP 65)

Environmental

EMC See compliance below
 Operating Temperature - 25 to + 55 °C
 Storage - 30 to + 70 °C
 Humidity ETSI EN 300 019-2-4 (see compliance below)
 MTBF > 100 000 hrs
 Complies with R & TTE Directive including:
 ETS EN 301 502 (ETS EN 300 609-4/GSM 11.26), ETS EN 301 498-8
 EN 60 950

All data is subject to change without prior notice.

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