

2FCR Repeater

Technical Information

Frequency Converting Outdoor Repeater

2FCR is a modular single band RF repeater equipped with two channels maximum to provide outdoor coverage.

Available in multiple RF powers, this repeater extends coverage to low mobile density areas where installation of additional BTS is not economically viable.

The system is comprised of a Master and a Remote Unit, and is designed for point to point application.

It is based on frequency conversion technology which permits optimum gain without the stringent antenna isolation requirements of conventional repeaters.

The Master Unit installed close to the BTS receives 0dBm RF signal in downlink through a BTS Coupler, converts them it to other predetermined frequencies and radiates +37 dBm composite RF power to the Remote unit(s). The remote unit(s) located at a distant site(s) receives the RF signals , converts them it to the original frequencies & transmits the signals to the coverage area. In the uplink direction, the signals received from the mobile users, are re-transmitted to the Master Unit.



Application Areas:

- Highways, Islands, Rural locations, Hilly terrain & other Remote Outdoor Locations

Salient Features

- Compatible with GSM, CDMA, iDEN and WCDMA technologies.
- Available for SMR 800 / Cellular 850 / SMR 900 / EGSM / GSM 900 / DCS 1800 / PCS 1900 / UMTS / AWS frequency bands.
- Designed for outdoor applications.
- Conforms to ETSI & FCC standards.
- Low noise and highly linear RF performance.
- APC (Automatic Power Control) for optimal linear output power.
- System monitoring through Local USB port with easy GUI.
- Remote CMC monitoring through modem (Optional).
- Remote Management System (RMS) is optional.
- High selectivity and excellent out-of-band signals rejection.
- Local controls, alarms & RSSI indication.
- 12 hour traffic monitoring feature optional.

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Model Nos Available

OS2F1, OS2F2

Specifications

Gain	115 dB
Attenuation range	0-31dB in steps of 1 dB (Manual through software)
Auto Power Control	25 dB Min.
RF composite Power (Options) DL	Master +37 dBm (P1: + 44dBm), Remote +37 dBm (P1: + 44dBm),+40dBm (P1: + 47dBm) & 43 dBm (P1: +50dBm)
	UL
Noise Figure	Master -10 dBm, Remote +37 dBm
Impedance	5dB Max.
Propagation delay	50 Ohms
CMC (VFD)	5.5µs Max. / Direction
Remote CMC (Optional)	BITE to measure RSSI, Power out put, Built in wireless modem
Power supply	AC 100-240 V ,47/ 63 Hz
Power Consumption Approx.	Master 100/175 watts (900/1800 MHz) Remote 200 to 300 watts depending on power & frequency
RF Connector	N type Female
Dimensions (L x W x H) Approx	Master Unit 800X445X210 mm (31x17x8 inches) Remote Unit 800X445X210 mm (31x17x8 inches)
Operating Temperature Range	-35°C to +55°C (-31°F to +131°F)
Weight Approx.	Master Unit 32 Kg (70 lbs.) Remote Unit 32 Kg (70 lbs.)
Environmental Standard	IP 65 (NEMA 5)

Accessories

- Operational Manual
- Power Supply Cord
- Software (CMC) CD
- Directional Coupler
- USB Interface Cable

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