GRM 950

rugged iDirect satellite modem

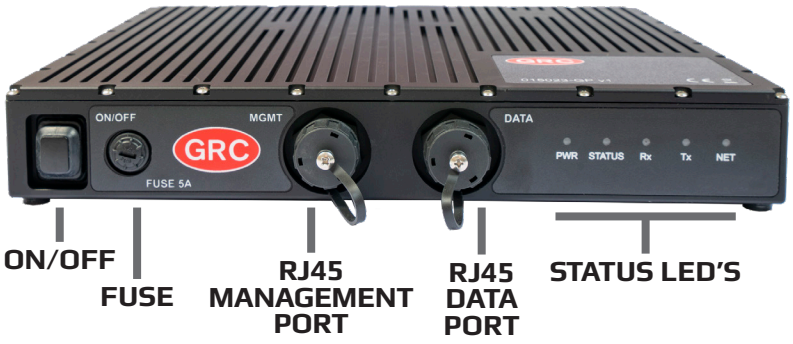
Lightweight, compact and suited to challenging environments, this next generation iDirect 950mp satellite modem offers the ideal solution for commercial, government and defence users looking for a fully featured satcom modem

KEY FEATURES

- iDirect Evolution and Velocity compatible
- IP67 rated and CE Marked
- Suited to on-the-move and static use
- Lightweight, rugged and low power requirements
- Increased data rates and higher packets per second processing with multi-image support
- Next-level security, FIPS 140-2 Level 3 compliant TRANSEC module
- Supports High-Throughput Satellite (HTS), Wideband Global SATCOM (WGS), defence and commercial networks

GRC

SECURE SOLUTIONS FOR SATELLITE, LTE, RF, IP NETWORKS AND CLOUD SERVICES



GRM 950 is a small-form, ruggedised, outdoor iDirect 950mp satellite modem for use in challenging environments.

Developed in conjunction with leading satellite hardware and airtime providers, GRM (GRC Rugged Modem) have been tested into iDirect hubs across multiple satellite service provider networks. Supporting both fixed location and mobile applications, they have been extensively trialled on a diverse range of terminals from comms-on-the-move (COTM), to man portable and large static dishes.

Compatible with Evolution and iDirect Velocity networks, IP67 rated and CE Marked, GRM modems are designed to meet defence and commercial requirements, while still delivering a cost-effective modem, that's flexible enough to operate on a diverse range of terminals and networks, yet intuitive enough for end users with minimal training.

The GRM family of rugged iDirect Modems, including the GRM 950, 700, 200 and 200 Mini.

TECHNICAL SPECIFICATIONS

Mechanical / Environmental

Size	5 x 30 x 27 cm (Height x Width x Depth)
Weight	3.3 kg
IP Rating	IP67
Operating Temperature	-40° to +60°C (-40° to +140°F)
Altitude	Operational up to 4,572m (15,000 ft)
Humidity	95% non-condensing humidity
Input Voltage	12-24VDC
Power Consumption	< 20W
Certifications	CE Certified, WGS Certified, built to meet FCC, UL, EU and Canadian standards, RoHS compliant, meets MIL-STD 810G

Network Configuration (Evolution only and software dependent)

Compatibility	Evolution® and iDirect Velocity™ compatible	
Network Topology	DVB-S2 with Adaptive TDMA Returns	
	Downstream DVB-S2/ACM	**Upstream** A-TDMA
Modulation	QPSK, 8PSK, 16APSK, 32APSK	BPSK, QPSK, 8PSK
FEC	LDPC 1/4-8/9	2D 16-State 1/2-6/7
Maximum Rates (Symbol)	45 Msps	29 Msps

Maximum downstream and upstream data rates cannot be achieved simultaneously. Maximum rates are achieved with optimal configurations.

Spread Spectrum	Spreading Factor	2, 4 and 8
	Max Chip Rate	29 Mcps

Interfaces

SATCOM Interfaces	Tx: SMA, 950-2400 MHz, +5dBm/-35dBm, 50Ω
	Rx: SMA, 950-2150 MHz, -5dBm (max) composite/ -130+10*log (Sym rate) dBm (min) single carrier, 50Ω
	Rx Reference Port (Out): SMA, 50Ω
	Software controllable 10/50 MHz reference on Tx and Rx Reference Port Out
Available BUC Power (IFL)	+24V, 2A max available @ connector
Available LNB Power (IFL)	Rx: 13-19V @ 0.45A, 22kHz DiSEqC tone
Data Interfaces	LAN: Dual 10/100/1000 Mbps Ethernet GPS input
Protocols Supported	TCP, UDP, ICMP, IGMP, RIPv2, Static Routes, NAT, DHCP, DHCP Helper, Local DNS Caching, OpenAMIP, cRTP, and GRE
Security	AES FIPS 140-2 Level 3, Link Encryption 256-bit (on iDirect Velocity model only and software dependent), TRANSEC, X.509 digital certificates authentication, Automatic Key Management
Traffic Engineering	Group QoS, QoS (Priority Queuing and CBWFQ), Strict Priority Queuing, Application Based QoS, Minimum CIR, CIR (Static and Dynamic), Rate Limiting
Additional Features	Built-in Automatic Uplink Power, Frequency and Timing Control, Authentication, Antenna Control Interface (OpenAMIP), Supports Multiprotocol Encapsulation (MPE), Low-Speed COTM

PLEASE CONTACT US FOR MORE INFORMATION
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