

InterSKY™

iRG 30



Shiron's new iRG 30 will revolutionize the way the world looks at the VSAT. The iRG 30 is a marriage of a two-way satellite terminal, an IP device and advanced control software. These components function together to provide delivery of pure IP traffic for all access needs.

The **iRG 30** is the only system available on the market today that supports SCPC, DAMA, PAMA, DVB-S and DVB-RCS. The system provides broadband connectivity for ISP points of presence (POP), corporate offices, financial institutions, small and medium enterprises, government offices and Internet cafés. The **iRG 30** is ideal for:

- Fast Internet Access
- Voice over IP Telephony
- Videoconferencing
- Interactive Distance Learning
- VPN (secure) Applications
- Reliable Business-To-Business (B2B)
- CRM
- IP Multicast Applications
- Telemedicine
- Terrestrial Backup
- Military Applications

The **iRG 30** is a compact unit that supports data rates of up to 384 Kbps. It is a reliable and flexible system, supporting turbo codes and dual mode (Continuous and Burst) operation. The system has enhanced DVB-RCS software and is suitable for low power consumption applications.

The **iRG 30** can either operate in PAMA mode (DVB outbound and SCPC inbound) or as an integral part of the **InterSKY™** system. The advanced control software inside the **iRG 30** acts as an agent of the central **InterSKY™** Hub controllers. This software controls the modulator to provide Automatic Power Control (APC) and Automatic Frequency Control (AFC), which help the system optimize space segment usage. The Traffic Analyzer in the **iRG 30** continuously monitors the outbound data needs and communicates with the Bandwidth On Demand (BOD) controller.

The **iRG 30** has highly reliable embedded architecture and provides dependable broadband connectivity rain or shine, whether on land or at sea. The system is available with an optional Traffic Shaper that delivers IP quality of service.

The **iRG 30** comes equipped with a 10/100 Base T Ethernet adapter for direct connection to a LAN, WLL, ADSL and other last mile interface equipment.

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Technical Specifications

Indoor Unit

AC Power	100-240V, 60/50Hz, 3.15A
LAN Interface	Ethernet (IEEE 802.3), 10/100BaseT, Autodetect
Operating System	VxWorks
L-Band Input Connector	F-Connector, 75 Ohm
L-Band Output Connector	N-type, 50 Ohm
Dimensions	440 x 290 x 42 (W x D x H) mm
Shipping Weight (with carton)	10 Kg.
Management Console	RS232 - EIA/TIA-232 (D-type 9pin).

Transmitter iRG 30

IF Range	L-band (950-1450 MHz)
Access	Dynamic FDMA, BM-FDMA, DAMA & Bandwidth On Demand, SCPC, DVB-RCS*
Modulation	QPSK (SQRT Raised Cosine, alpha=0.35)
Coding	Convolutional Code R=1/2, 3/4 Turbo Code (DVB-RCS) R=3/4
Channel Rate	16-256 K Symbols Per Second
Information Rate	16-384 Kbps in 16 Kbps Resolution
Signal Level	-35 to -5 dBm
Transmission Type	Continuous and Burst
Reference Stability	+/- 0.2 ppm

Receiver

IF Range	L-band (950-2150 MHz)
Access	DVB/S broadcast (ETS 300 421) Packed/Unpacked mode of MPE over DVB-S MPEG2-TS
Modulation	BPSK/QPSK (as per DVB-S)
Coding	Convolution Code (rates 1/2, 2/3, 3/4, 5/6, 6/7, 7/8) Concatenated with Reed-Solomon (188/204)
Signal Level	-65 to -35 dBm

Outdoor Unit

RF Frequency Band	C, Extended C, Ku, Extended Ku, Ka
Transmit Level	C-band: 2-5 Watt, Ku band: 1-4 Watt Higher power available upon request
Receiver	Low-cost Standard DRO LNB
Power Supply	24 VDC /4.5A, Supplied via RF Cable
Frequency Reference	10 MHz, Supplied via RF Cable
LNB Power and Signaling	Switchable 13/18VDC up to 350 mA, 22 KHz

Environmental Conditions

Indoor Unit

Operating Temperature	0° to +50° C
Storage Temperature	-25° to +85° C
Humidity	5% to 95% Non-Condensing
Altitude	Up to 10,000 Feet

Outdoor Unit

Operating Temperature	-40° to +55° C
Storage Temperature	-40° to +70° C
Relative humidity	Up to 100%
Altitude	Up to 10,000 Feet
Standard Compliance	FCC, CE, CTUV
Standard Conformation	DVB-S, IESS-308, ETSI TBR

*Upgradeable

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