

ICRS-SDH-5000

ICRS-SDH-5000 STM-1/OC-3 radio system is a high capacity full feature, split-mount digital microwave radio designed to seamlessly incorporate radio links into a fibre-based SONET/SDH network.

The system is available in a variety of frequencies from 4GHz to 18GHz, and uses ASIC modem technology with a very high level of integration to attain cost, performance and reliability objectives that are unmatched in the industry.

The system features a fully compliant SONET/SDH regenerator and provides additional features including automatic protection switching, network management and tight integration with existing SONET/SDH element management systems.

ICRS-SDH-5000 radio system meets carrier grade standards for reliability, quality, and environmental requirements.

**Product Features**

- Supports 4 to 18 GHz Microwave frequency bands
- Single coaxial cable interconnection
- Hitless receive protection switching
- 100% (1+1) redundancy with no additional switching hardware
- 128QAM for 28MHz spectrum license
- STM-1 Electrical/optical tributary interfaces
- ATPC reduces the co-channel and adjacent interference
- E1 wayside channel as well as auxiliary voice EOW and data channels
- SNMP management with integral routing
- Local configuration backup via removable NVRAM
- Remote software download
- Extensive maintenance and operational capabilities
- Meets all relevant ITU and ETSI standards

Applications

- Wideband wireless access, wireless local loop (WLL) and access market
- Mobile cellular network, which requires higher capacity due to an increase in subscribers, cell sites and data application
- Back up network for fibre optic trunk links
- Private and Enterprise networks such as educational institutions, financial institutions and utility companies providing voice ATM & IP private networks

Specifications

System Parameters								
Frequency [GHz]	3.4-4.2	4.4-5.0	5.9-6.4	7.1-8.2	8.2-8.5	12.7-13.3	14.4-15.4	17.7-19.7
Channel Bandwidth	28MHz							
Tx Power	+23dBm					+18dBm		
High TX Power (Optional)	+27dBm					-		
Rx Sensitivity@10 ⁻³	-71.0dBm					-70.5dBm		
Rx Sensitivity@10 ⁻⁶	-68.0dBm					-67.5dBm		
ATPC Range	≤20dB							
Frequency Stability	±10ppm to ±2ppm							

Payload Parameters	
Line Rate	155.52Mbps STM-1/OC3
Interfaces	Electrical (ITU-TG.703), Dual 1.0/2.3 coaxial connector; or Optical (ITU-TG.957S-1.1/Telcordia GR-253 IR-1), Duplex SC receptacle
SDH/SONET Processing	Regenerator Section Termination(RST) / Duplex SC receptacle
Wayside Interface	E1 (2Mbps) transported outside SONET/SDH frame, dual 1.0/2.3 coaxial connector
Data Channel Interface	G.703 or V.11
Voice EOW Interface	Standard handset interface

Configuration	
Supported Configurations	1+0, 1+1 (no additional switching hardware required)
Radio Protection	Hitless (errorless) switching with hot stand-by, frequency and space diversity
Tributary Protection	Single or Dual tributary
Power Protection	Dual inputs with redundant feeding and power conversion (1+1) configuration

Mechanical/Environmental	
Dimensions (W)x(D)x(H)	IDU: 48.2cm x 25.4cm x 4.4cm (1U); ODU: 39.0cm x 31.0cm x 15.6cm
Weight	IDU: 3Kg; ODU: 6.8Kg
Operating Temperature	IDU: -10°to +50°C; ODU: -30°to +55°C
Altitude	< 5,000 meters
Humidity	IDU: 95% non-condensing; ODU: 100% all-weather
Power Input	-48VDC (-36Vto-72VDC)
Power Consumption	1+0: ≤100W; 1+1: ≤200W
Cooling	Natural convection
ODU-IDU Interface/Cable	Coaxial N (F) connector / N (M)cable (RG-8U upto 300M)
Antenna Connector	Coaxial N (F) type connector

Management	
Protocol	SNMP
Local & Remote access	Ethernet 10Base-T (RJ-45)
Remote Access	Integrated routing across link and interconnecting LAN's
External Alarms	DB-25 connector
Signal Level Indications	LED RSSI indicator on ODU

All technical data are subjected to change without notice.