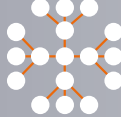Star   Full Mesh   Multi-Star   Hybrid

ND SATCOM

SKYWAN IDU 7000 SERIES
SKYWAN IDU 1070

The SKYWAN IDU 1070 is the latest member of the ND SatCom SKYWAN product family, providing a compact and cost efficient remote terminal. It is fully compatible with the existing SKYWAN IDU 7000 terminal series and supports multiple IP interfaces. A dedicated IP interface is available for management traffic only to further enhance security. The IDU 1070 terminal is available with various built-in AC and DC options to power a wide range of ODU units.

The IDU 1070 provides the complete feature set of the existing SKYWAN IDU 7000 series including
• True full mesh capabilities
• Turbo-Φ Channel Coding
• IP routing with full IP feature set

The IDU 1070 provides optimized IP networking capabilities in various network topologies and is ideally suited to support enterprise and governmental network applications where performance and size is key.

Customers for Defense, Energy, GSM Backhaul, Media, Maritime and Disaster Recovery applications will benefit from its flexibility and scalability.

KEY FEATURES

• 8PSK, QPSK and BPSK modulation with wide range of code rates and symbol rates
• High performance with modem data rates up to 10 Mbit/s
• Built-in 3 port Ethernet switch for user traffic
• Dedicated 10/100 Mbit/s Ethernet port for management

ND SATCOM

TECHNICAL SPECIFICATIONS – SKYWAN IDU 1070

CONFIGURATION

Network Topology	True full mesh / star / hybrid / multi-star
Encoding	Turbo-Φ
Modulation & FEC Code Rates	QPSK: 1/3 / 2/5 / 4/9 / 1/2 / 2/3 / 3/4 / 4/5 / 5/6 / 6/7 8PSK: 2/3 / 3/4 / 4/5 / 5/6 / 6/7 BPSK: 1/3 / 2/5 / 4/9 / 1/2 / 2/3
Eb / No	2.6 dB at FEC 1/2 with BER 10-7
Channel Spacing / Roll-off	1.2 , 1.4 / 0.2 , 0.4
Modem Symbol Rate	100 KBaud – 6 MBaud, variable in 1 KBaud increments
User Data Rate	64 Kbit/s – 10 Mbit/s
Satellite Channel Access Type	MF-TDMA / data rate hopping / multiple carrier hopping / transponder hopping / cross-strapping / Doppler Shift compensation / optional WGS compliant modem
Access Scheme	Bandwidth-on-Demand / real-time / non-real-time / guaranteed throughput / QoS classes
Security	Optional LINK ENCRYPTION with AES 256 Encryption and internal Key Management

INTERFACES

LAN Interface	1 x 10/100/1000 Mbit/s plus 3 x 10/100 Mbit/s Ether net LAN / IEEE802.3 / RJ-45
Protocol	Dynamic Routing / OSPF / Static Routing / Multicast / Load Balancing / TCP / TCP-Acceleration / UDP / IGMP / VoIP / QoS / Diffserv / Robust Header Compression / Platinum Dynamic QoS for VoIP and Live Video
Modulator	L-Band 950 – 1750 MHz / 0... - 30 dBm / N connector, female, 50ohm / optional 24 VDC, max. 3.5 A
Demodulator	L-Band 950 – 1750 MHz / -35...-75 dBm / N connector, female, 50ohm / optional 24 VDC, max. 700 mA
10 MHz reference signal	Configurable on Tx / Rx / reference clock output, SMA female connector, 50ohm

RADIOS *

RFT 5000	C-Band 20 / 40 / 60 W	Ku-Band 10 / 20 / 35 W	Extended Ku-Band 20 / 30 W
COMPACT (NJR BUC)	C-Band 5 W	Ku-Band 3, 4 and 6 W	
Others	Radios with L-Band interface, LNBs with external clock reference from SKYWAN		

NETWORK MANAGEMENT *

NMS Platform	SKYWAN NMS
NMS Architecture	Central station, additional stations may be used for monitoring
IDU Management Interfaces	Remote access with in-band management (from central NMS station over satellite) via SNMP Remote access with dial-in (via public telephone network with attached modem) Local access via integrated console port EIA-232
Lineup Manager	Easy tool to commission remote SKYWAN station via local console port or Ethernet port
Security NMS & Station	Authentication of NMS station / dedicated IP Network for management / authentication of remote station

PHYSICAL DIMENSIONS AND ENVIRONMENTAL CONDITIONS

Dimensions (L x W x H)	1 RU x 415 mm (19") x 513,6 mm	
Weight	4.3 kg (including built-in power supply for ODU)	
Power Supply IDU	Auto sensing 100 – 240 V +/- 10% / input frequency 47 – 63 Hz / Option: 24V DC, up to 6,5 A via external source	
Power Consumption	50 VA nominal (without external load) 160 VA nominal (with external load of max. 4 A at 24 VDC)	
Temperature Range	+0 °C to +50 °C	
Humidity	5% - 85 %	
Altitude	Up to 3000 m above sea level	
Compliance	Fully CE compliant with RoHS and REACH	
Radio Standards	EN 301 428 Harmonized EN for Ku-VSAT	EN 301 443 C-Band VSAT
Safety	EN 60950 Safety IT Equipment	
Emission Standards	EN 61000-6-3 Generic Emission Standard EN 61000-3-2 Harmonics	EN 55022 Emission IT Class A EN 61000-3-3 Flicker
Immunity Standards	EN 61000-6-1 Generic Immunity Standard	EN 55024 Immunity IT

* separate datasheets available