

SATPATH SkySwitch™



SkyWeb™ 1000e Satellite Router Small Form Factor & High Performance

Featuring 98% Channel Efficiency in Network Operation

Applications:

- Bank ATM Transaction
- Remote Database Access
- Internet Access
- Surveillance & SCADA
- Private VSAT Network
- Mobile Wireless Backhaul
- Rural Telecommunications

Advantages:

- Lower RFT (ODU & ANT.) Cost
- Highest Channel Efficiency
- Fast Response Time
- Low Cost
- Light Weight for Flyaway

Features:

- Tx Data Rates up to 2 Mbps
- Rx Data Rates up to 13.8 & 22 Mbps
- 5% Roll-Off Factor
- Network Mode
- Web GUI with Traffic Statistic
- Satellite IP Router
- Internet Gateway Router
- Automatic Channel Switching
- Multicasting
- Traffic Filtering
- Bandwidth On Demand
- Receive-Only/Transmit-Only/2-Way
- Automatic Tx Level Control

SkyWeb™ 1000e router is a small form portable unit. Designed for wide range applications from remote office to access corporate data center and Internet, or integrated in a manpack for mobile communications.

The 1000e smart terminal is a Layer-3 router with a high performance single channel VSAT modem port. The modem is recently upgraded to support 5% roll-off factor with options to support higher block rate and is more power efficient. SkyWeb™ 1000e features on-demand SCPC/MCPC/BOD carrier and supports **PSMA (Packet Switching Multiple Access)**. It delivers the same high channel efficiency and performance as all other SkySwitch® smart terminals. The 1000e terminal transmits wide data rates from 8 kbps to 2048 kbps, while receiving up to 13,824 Kbps (or 22 Mbps option) for broadband connection. When the smart terminal operates in **Network Mode**, it functions as a single channel VSAT IP router in star network. Optional **Standalone Mode** is for fixed point-to-point IP connection as an SCPC satellite router. Optional **2nd Channel** allows the terminal to operate in **RNO (Remote Network Operation)** mode for sub-networking.

SkyWeb™ 1000e terminals can be bridged to support Layer-2 network and VLAN in order to be compatible with legacy VSAT implementation. Extended Bandwidth-on-Demand allows the modem to change MODCOD on the fly for both high and low rate transmission. Automatic Link Level adjustment in network mode makes the terminal easy to install and operate. Both dynamic and static routes can be configured locally or globally over the network that provides seamless connection to external IP networks.





Each remote site has its own dedicated single channel carrier in SkySwitch® network. Each smart terminal validates its connectivity and traffic before the traffic is sent over satellite. The single channel carrier uses 30% - 50% less bandwidth than TDMA carrier with same

data throughput because there is no framing overhead for multiplexing. It also uses smaller antenna and ODU compared against TDMA carrier because it only requires power for a single site traffic. SkyWeb™ 1000e with PSMA technology delivers fast acquisition and short latency for real-time applications.

SkyWeb™ 1000e Terminal Specifications

Service Applications

- High performance, broadband IP, 2-way services for STAR networks
- 2nd Channel option to enable **Double Star** topology

Access Methodology

- On-Demand Composite TDM Outbound Carrier using Packet Switch Multiple Access (PSMA)
- Contention Access Slotted Aloha Inbound (CSC-IB) to initiate DAMA activation
- SCPC / MCPC Inbound Carrier for IP traffic services Adaptive Bandwidth-On-Demand (ABOD) streamlining Inbound traffic to reduce Carrier rate with adaptability to match real time IP traffic demands

IP Features and Routing Function

- Intranet/Internet, Multicast, TCP Acceleration
- Layer 3 Routing or L-2 Bridging with VLAN, DNS Caching
- Standard & Customized QoS traffic Prioritization Protocols: TCP UDP RIP ARP DHCP ICMP IGMP Telnet PPP FTP HTTP SMTP SNMP OpenAMIP DSCP

Mechanical & Environmental

- RJ-45, 10/100 Base T Ethernet Interface
- Power, AC IEC-320 Interface 110-240 VAC 47-63 Hertz, 90 watts, or 24VDC, 2.5A
- Dimensions: 48 x 195 x 232 mm Desktop Unit
- Weight: 2.1 Kg
- Operational: 0 to +45 degrees Centigrade
- Humidity: Up to 95 % non-condensing
- Storage: -30 to +70 degrees Centigrade

Outbound Carrier

- Proprietary TDM with PSMA, or SCPC/MCPC

- BPSK/QPSK/8PSK/16QAM Modulation
- Turbo Product Code FEC, 0.72, 0.79, 0.87 Rates, Approx.
- Carrier Data Rate 8 to 2,048 Kbps, 1.05, 1.10, 1.20 or 1.30 Symbol Rate Carrier Spacing Options

Inbound Carrier

- Shared Slotted Aloha at 24/48 Kbps for initial network entry and DAMA
- On-Demand SCPC / MCPC with BOD for IP traffic
- BPSK/QPSK/8PSK/16QAM Modulation
- Turbo Product Code FEC, 0.72, 0.79, 0.87 Rates, Approx.
- Carrier Data Rate: 8 Kbps to 13.8 or optional 22 Mbps
- Inbound Carrier rate adaptability to match actual site traffic Real Time Demand, 1.05, 1.10, 1.20 or 1.30 Symbol Rate Carrier Spacing Options

ODU Interface

- Transmit: 950-1850 MHz L-band with 2.5 KHz steps; +24 VDC @ 2.7A and 10 MHz Reference @ 5 dBm, Type F(f) Coaxial connector, 75 ohms, Level: -45 to 0 dBm in 0.5 dB steps
- Receive: 950-1850 MHz L-band with 2.5 KHz steps; +24 VDC @ 0.3A and 10 MHz Reference @ 5 dBm, Type F(f) Coaxial connector, 75 ohms, Level: -75 to -35 dBm desired carrier

Certification

- 47 CFR FCC Part 15, Subpart B; , CE EN 55022 Class A, Industry Canada ICES-003, EN 61000-3-2, EN-61000-3-3, EN 55024

Options

- SA: StandAlone
- HR: High Rate, RX LDPC Up to 22 Mbps; TX TPC
- LC: LDPC RX and TX
- Jumbo Frame Support

CONTACT US

USA Main Office

47971 Fremont Blvd.
Fremont, CA 94538
Tel: +1-510-9791102
Fax: +1-510-9791105
info@satpath.com
www.satpath.com

CHINA Beijing Office

Soubao Commerce Centre
Tower 2, Ste. 708
16 Nan Sanhuan Xi Road
Beijing, China
Tel: +86-10-88552927
Fax: +86-10-88552957

Taiwan, StarComm

5F, #18, Lane 321 Yangguang
St.
Neihu District, Taipei 114
Taiwan
Tel: +886-2-26579876
Fax: +886-2-26579237

UAE,

Plot No. MO-0646
P.O. Box 18372
Jebel Ali Free Zone
Dubai, UAE
Tel: +971-4-8041888
Fax: +971-4-8834080