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SCPC MODEM

19” Rack Mount Unit
NGN 9330

Wall Mount Unit
NGN 9300

SCPC Modem is a high data rate modem, which easily and efficiently integrates data connectivity up to 8 Mbps. It features turbo coding, providing unparalleled performance in the industry.
It supports 16 QAM, 8PSK and QPSK under various coding rates.
It is a perfect fit for high data rate applications including:

- Corporate and Carrier Networking
- GSM Backhaul
- ISP Backhaul
- Legacy Data Networks

Features & Benefits

Control: It can be controlled by the NMS or operated in a standalone mode with an LCD and keypad for setup and configuration.

Topology: It can be configured to work in point-to-point, point-to-multipoint, or broadcast and multicast modes.

Operation: It supports full duplex, simplex, or asymmetric operation with data rates ranging from 64 kbps up to 8 Mbps.

Remote Access: It provides great flexibility through software enabled G.703 Drop/Insert, Ethernet and Serial interfaces.

Monitoring & Control

Configuration, monitoring and control of the SCPC modems can be centralized at the Network Control Center (NOC). The modems can either be accessed through the user friendly NMS (Master-Slave), Telnet, CLI or TurboNMS and Web Browser.

Gateway Terminal Unit - GTU

The Rack Mount Unit is a standard 19 inches, 1U high, providing a perfect solution for gateway installations. It provides an LCD and keypad for initial setup and complete unit configuration.

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SCPC Data	•QPSK,8PSK,16QAM •64 kbps to 8 Mbps •FEC ½,2/3,3/4,7/8
Data Interface	• 1 x Serial V.35 •4 x G.703 E1 •1 x Ethernet
Assignment	•Permanent Assignment •Bandwidth on Demand •Full Mesh
Efficiency	•100% •1.3 Channel Spacing

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SPECIFICATIONS

System

Frequency Range	
L-Band:	950 to 1525MHz
C-Band RF:	5850 to 6425MHz; 3625 to 4200MHz
Ku-Band RF:	14 to 14.5GHz; 10.95 to 12.7GHz
Step Size	8 kHz
Input/Output Impedance	IL-Band/RF: 50 ohm
IF Tuning Range	L-Band: 950 to 1525MHz
IF Connectors	
NGN-9300	LNB: F-Type BUC: N-Type
NGN-9330	LNB: SMA-Jack BUC: SMA-Jack LNB: F-Type (remote) BUC: N-Type (remote)
User Information Rates	64Kbps up to 8 Mbps
FEC Options	Turbo Coding 1/2, 2/3, 3/4, 5/6, 7/8

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SPECIFICATIONS

Modulator Output Spectrum/Filtering	Meets IESS-308/309 power spectral mask
Modulator Output Power	L-Band: -10 to -40dBm
Modulator Accuracy	±1.5dB over time & temp.
Modem	QPSK, 8PSK, 16QAM
Roll-Off	0.2 for QPSK, 0.3 for 8PSK, or 0.4 for 16QAM
Spectral Inversion	Auto detect & correct
Demodulator Acquisition Range	±50KHz
BER Performance	Turbo Coding Eb/No for a BER of 10-9: 1/2 QPSK = 2.5 3/4 QPSK = 4.0 1/2 16QAM = 5.0 5/6 QPSK = 5.4 2/3 8PSK = 6.2 7/8 QPSK = 6.4 3/4 16QAM = 7.5

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SPECIFICATIONS

Frequency Stability	+/- 1 ppm
10MHz Ref. Power Level	BUC: 0dBm ±3dB

Network

Data Interfaces	One Ethernet (IEEE 802.3u 100Base-TX, IEEE 802.3 10BaseT, IEEE 802.3x Flow Control pause packet for full duplex)
	Four E1/T1
	One Serial (V.35 or RS-232)
	One console port
	Multiplexing of G.703 with IP traffic

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SPECIFICATIONS

Protocols	IP, IP-ARP, UDP, TCP, ICMP request & reply
	Transparent, HDLC, Drop & Insert
	Static IP Routing
	QoS: Policy based with up to six classes
	Pass-thru for VPN, H.323, SIP & security protocols such as IPSEC
	Optional IP Bridging
Config., Monitor & Control	NMS, Telnet, CLI, FTP, Web
	Browser, Front Panel and SNMP (alarm)

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Physical/Environmental

Dimensions	19 inches rack mount, 1U high, 43cm (D) (NGN-9330) 32.5 cm (H) x 43.5 cm (W) x 10.9 cm (D) (NGN-9300)
Weight	2.5 Kg (NGN-9330) 5.2 Kg (NGN-9300)
Voltage & Frequency	115 or 230 VAC 50/60 Hz optional +24 VDC
Environmental	0 to +45 °C, 90% humidity

SCPC (Single Channel per Carrier) Network Solutions

SCPC (Single Channel per Carrier) networks provide communication links between two sites and are best compared to terrestrial leased-line connections. The SCPC network system addresses both a point-to-point satellite link and star network with several sites. The solution is controlled and monitored by a Network Monitoring System (NMS) from a central HUB station. In cases where the data link is down,the HUB has full control over the VSAT link over the control channel. The requested capacity in a SCPC network is "always on". A SCPC network can support high bandwidths and is ideal for all types of communication services (e.g. voice, data and video traffic).

SCPC is a well-established and steadfast technology, is known for it's advanced reliability, superior bandwidth efficiency and significant flexibility. TS2 SCPC services provide all of the premium advantages SCPC has to offer. Offering two-way dedicated bandwidth, SCPC-SCPC services provide the perfect solutions for businesses with demanding applications, such as VoIP, dedicated data channels, backhaul connectivity, etc.

SCPC VSAT equipment

Complete satellite system includes: TX / RX modem (SCPC Modem), 1.8M antenna, 2W/3W/4W BUC, L- or Ku band LNB, CISCO router 1721, WIC card and cable MT530, RG11 cable.
Final configuration depends on location.

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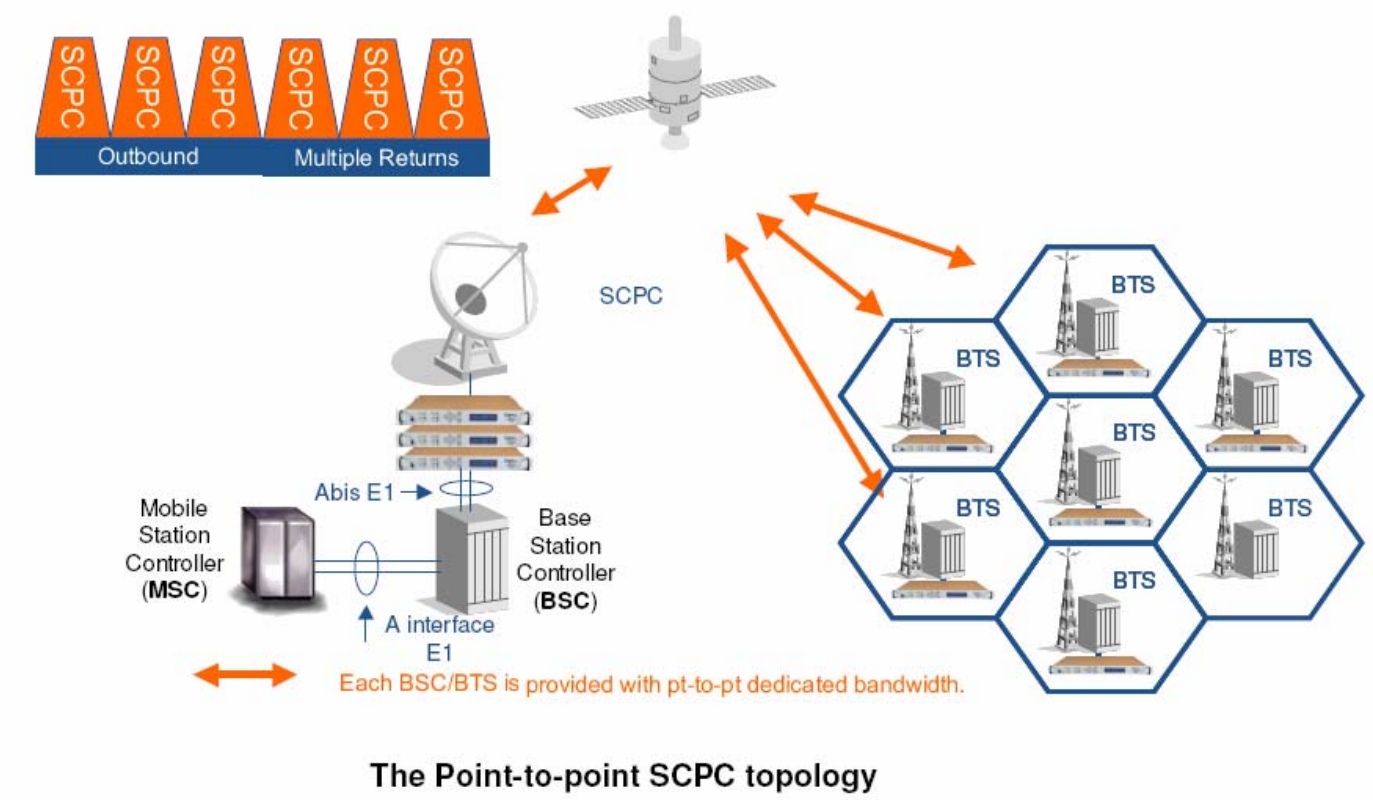
Market Penetration

- **GSM Backhaul**



The Point-to-point SCPC topology

Market Penetration

- Video Conference
- Internet coverage
- Broadcasting
- Push and Pull Media
- DSNG
- Digital Signage
- Content Delivery
- Disaster Setup
- Primary and secondary Backup link
- Point to Point connectivity
- Satellite on the move
- Off shore communication

If some additional explanations are necessary for certain points, do not hesitate to let us know and we will answer with the greatest attention.