

MN610 (C-band) MN620 (Ku-band) IP Satellite Interactive Terminal (SIT)

MENOS

DESCRIPTION

The MENOS IP SIT is one of the terminal types that can be used within the MENOS satellite network environment. The terminal is intended for network members and organizations requiring high-speed Internet access or telephony services independently of the availability of terrestrial links.

The MENOS concept starts with the end-users in mind. The terminals require little maintenance, are easy to install and operate and are configured for specific applications while being made of common building blocks using standardized technologies.

APPLICATIONS

IP access services:

As an integrated satellite IP access platform, the MENOS IP SIT provides an 'always-on' high-bandwidth Intranet and Internet connection, both for unicast and multicast traffic. The TCP acceleration services, HTTP prefetching and caching allow for a seamless broadband internet experience.

Secure Virtual Network Operation:

Professional users have the ability to create Virtual Private Network (VPN) connections among several SIT's to allow secured access for exchanging private data. The VPN's are implemented by the tunnel mode IPsec Internet standard, encrypting and authenticating the entire IP packet contents for maximal security.

VoIP collaboration channels:

The VoIP collaboration channels enable cost-effective SIT to SIT voice communication for daily operations, while consuming very little satellite bandwidth. The embedded Quality of Service (QoS) features of the SIT ensure that VoIP traffic is prioritized over IP access traffic. As such, optimal voice quality can be assured during phone conversations or conference calls.

The terminal is equipped with an Analogue Telephone Adapter (ATA) that is fully integrated into the VoIP sub-system.

FEATURES

- Fully integrated, easy to install turn-key terminal system
- Sat3Play IP broadband access
 - DVB-S2 Constant Coding Modulation forward channel
 - MF-TDMA Return Channel
- Two satellite frequency bands supported
 - MN620 operating in Ku-Band
 - MN610 operating in C-Band
- Supports IP broadband applications, both unicast and multicast
- High speed IP connection with embedded acceleration:
 - DNS cache/relay for bandwidth efficiency
 - HTTP pre-fetching for faster web browsing
 - Web caching
- Integrated encryption on data available
- Fully integrated VoIP services
- Quality of Service (QoS) implementation
 - Support of four dynamic QoS traffic classes
 - Support of constant bit rate allocation reservations
- Remote monitoring and diagnostics
- Remote software upgradeable

RELATED PRODUCTS AND DOCUMENTS

Other MENOS products

- MN510 and MN520 Radio exchange SITs
- MN410 and MN420 TV exchange SITs

Application notes

- MENOS applications – Broadband access



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R3/07.2009

Specifications – MN610/620

SATELLITE INTERFACE

Broadband access modem

- Forward Channel:
Modulation: DVB-S2 QPSK/8PSK CCM
Rates : 3 to 30 Mbaud
- Return Channel:
Modulation : GMSK
Rates : 0.256 Mbaud and higher (*)

Outdoor unit Ku Band (MN620):

TX Frequency : 13.75 to 14.25 GHz
TX Output power: 4 W
RX Frequency : 11.7 - 12.75 GHz (optional 10.7 - 11.8 GHz)
Polarisation : linear (Tx/Rx orthogonal)
Antenna : 1.2m offset – Tx/Rx 43.3/41.8 dBi

Outdoor unit C Band (MN610):

TX Frequency : 5.85 to 6.425 GHz
TX Output power: 4 W
RX Frequency : 3.7 to 4.2 GHz
Polarisation : circular (Tx/Rx orthogonal)
Antenna : 1.8m offset – Tx/Rx 39.5/35.4 dBi

TELEPHONY

Analog Telephone Adapter:

- GrandStream HT-386:
2 FXS ports
G.723.1 codec

IP PERFORMANCE

IP data Throughput:

Forward: 2 Mbps Unicast, 16 Mbps Multicast
Return : 146 kbps (GMSK) / 1,5Mbps (*)

Collaboration channels:

Max. 2 VoIP connections simultaneously

STANDARDS AND PROTOCOLS

STANDARDS

EN 301790	: DVB-RCS (partially)
EN 302307	: DVB-S2
EN 301421	: DVB-S
IEEE 802.3	: 10T Ethernet
IEEE 802.3u	: 100TX Ethernet
ISO/IEC 13818-1	: MPEG-2
ISO/IEC 14496-14	: MPEG-4

ROUTING PROTOCOLS

RFC 768	: UDP
RFC 791	: IP
RFC 792	: ICMP
RFC 793	: TCP
RFC 826	: ARP
RFC 959	: FTP
RFC 2131	: DHCP

ENVIRONMENT

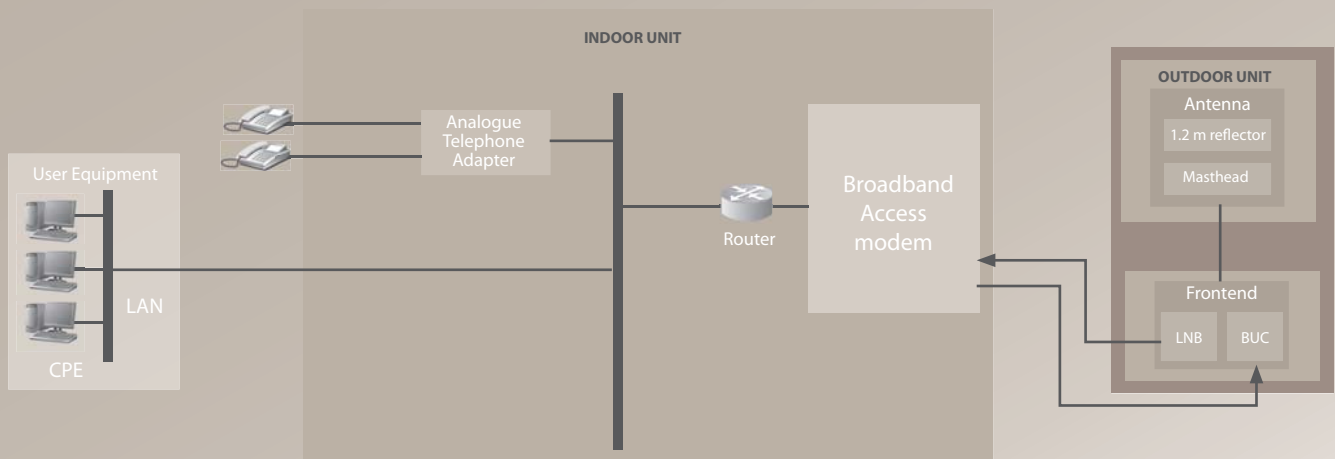
- Weight : 10 kg
- Temperature (indoor unit)
operational: 0 to 40 degC – non condensing
storage: -40 to 70 deg C up to 95% condensing
- Temperature (outdoor unit) : -30 to 55 deg C
- Power Supply : 230V/6A
- Power consumption : 80 Watt

ORDERING INFORMATION

MN610: IP terminal with C Band RF Front End + Antenna (no mount)
MN620: IP terminal with Ku Band RF Front End + Antenna (no mount)

Options:

AN-xx: Non-penetrating mounts for antennas
AR-xx: Non-standard antenna dish sizes
AL-xx: Non-standard IF cable lengths
AS-xx: LNB for non-standard frequencies (e.g. 10.7 - 11.8 GHz)



* Planned for future release. Specifications subject to change without notice

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