NOMAD

PORTABLE PROBE

NOMAD and NOMAD-PRO, cover all the monitoring needs encountered in hybrid IP multicast, OTT and RF networks. It is the ultimate all-in-one monitoring and analysis solution for the technician on the move. NOMAD features a plethora of award-winning and patented technologies, the culmination of many years of accumulated engineering knowledge and R&D in IP and broadcast monitoring.

Technologies

Bridge Technologies options are designed to enhance the overall ability and performance of accurate monitoring in the broadcast environment

Click below to learn more about compatible technology options:

DiSEqC 1.0   ETR290™   FSM   Gold TS   MediaWindow™   microETR™   OTT   P FF   RDP

Environmental

Eurovironment   RoHS   WEEE

Overview

NOMAD is a breakthrough design with almost every conceivable interface for media signal monitoring and analysis. Featuring optical/electrical Gigabit Ethernet, ASI in/out, DVB-C QAM cable, DVB-T/T2 COFDM terrestrial, DVB-S/S2 satellite and external 1PPS GPS time-reference, NOMAD can analyse all RF transmitted DVB signals as well as OTT and multicast/unicast IP transmissions. With comprehensive IP packet analysis tools, NOMAD is ideal for IP transport understanding regardless of media transported. NOMAD also is shipped with the ultimate in user friendly setup. The unit contains a Wi-Fi zone, and by pointing a laptop towards this, NOMAD is ready for use without further configuration.

As technologies become more and more complex, using NOMAD will give invaluable insight into modern media signal behaviours without the need for deep operator knowledge of the media technology used. Cut from a single brick of aluminium, NOMAD sets a new standard for both finish and ruggedness. It is also of very light weight and is the perfect companion to a laptop.

NOMAD ships with extensive functionality for superior digital media understanding right out of the box. Additionally NOMAD has a substantial additional set of extended analysis options, enabling it to outperform the most comprehensive systems on the market in functionality. This also allows NOMAD to be an ideal laboratory tool for desktop analysis in the most demanding environments. NOMAD also sets a new benchmark of affordability in the industry.

With the rapid growth in the numbers of offshore VSAT systems, and the increasing bandwidth

consumption of each installation, a simple, reliable and affordable way of monitoring RF performance is urgently required. NOMAD provides the solution. Capable of analysing RF parameters such as MER, CNR, Eb/N0 and channel power, NOMAD is powerful and highly portable, self-contained and built to withstand the rigours of the offshore environment.

Designed to replace old-school PCI cards, USB-based dongles and other laptop-dependent devices, NOMAD is a complete free-standing unit with its own CPU and can be left to monitor signals by itself without the need for a host system.

Please also visit: nomadportable.com

Tech Features

MEDIA PROFESSIONALS MOST VERSATILE COMPANION

- Ideal desktop analytics tool
- Intuitive GUI for remote access via Wi-Fi or cabled Ethernet
- Accurate packet behaviour, IAT histogram, protocol analysis and traffic, autodetection of IP uni/multicast
- HLS, HDS, M-DASH, SmoothStream™, RTMP, post-CDN URL token support and manifest validation. Innovative framework for measuring delay of OTT service through distribution chain
- Microsecond-accurate and detailed multicast packet monitoring, analysis and alarming with readout and alarming on key parameters relevant to video
- Return Data Path forwarding of any transport stream monitored with automated alarm triggered recording to 32GB of on-board Flash memory
- Gold TS protection
- ICMP PING and TraceRoute can be done from inside a location remotely and PING can be setup to alarm if remote device stops responding
- MPEG2-TS. H.264/AVC HD, H265/HEVC 4K, AAC, PCM Audio, SCTE-35 signalling, T2-MI encapsulation and more
- Total packet understanding with the patented MediaWindow™ visualisation technology for RTP/UDP uni- and multicasts
- The award-winning ETR290 Engine with detailed analytics of Priority 1, 2 and 3 tests plus extensions to test CA behaviour, alarm history view, timeline view and much more
- Objective QoE Engine. Freeze frame and color frame detection on services from any NOMAD input
- Autonomous operations, NOMAD is a completely freestanding unit with its own CPU and can perform without the need for any external host system
- PCAP Ethernet packet capture onto on-board RAM, filesystem storage accessible via web interface for offline analysis using tools such as Wireshark or tcpdump

CONNECTOR SPECIFICATION

ETHERNET

- 10/100/1000T Gigabit Ethernet interface for video/data analysis
- SFP port for optical Gigabit connectivity
- Optional second Gigabit Ethernet port
- Web-based management interface optionally on all ports
- SSH/TELNET terminal
- Relay video multicasts to 3rd party targets using RDP
- Laser power received level for fault finding on SFP

WiFi
- Provides 2.4 GHz Wireless Access Point service
- No setup – Nomad is WiFi Zone
- USB 2.0 IEEE 802.11 b/g/n 150Mbit/s dongle

DVB-S/S2 SATELLITE
- Supports DVB-S and DVB-S2 8PSK, 16APSK, 32APSK, GOLD CODES
- L-band input from 950 – 2160 MHz
- Symbol rate range between 1 – 45 MS/s
- 13V/18V/22kHz and DiseqC 1.0 capable for switch control
- High-end RF performance with constellation diagram and over 20 RF parameters
- Auto-scan feature

DVB-T/T2/C TERRESTRIAL & CABLE *(European product only)*
- Supports DVB-T EN 300-744 and DVB-T2 EN-302-755 (v1.3.1)
- Supports ITU.T J.83 Annex A/C for cable networks (QAM16 up to QAM256)
- Frequency range: 43 – 1002 MHz. Bandwidth 5, 6, 7 and 8 MHz
- Channel Impulse Response diagram & constellation diagram for DVB-T/T2

ATSC TERRESTRIAL & CABLE (US product only)
- 8VSB for ATSC terrestrial applications
- QAM Annex A/B/C for cable applications
- Symbol rate 0.7-7.2MS/s
- QAM modes 16,32,64,128,256
- Constellation plot

1PPS
- Offers GPS syncronization down to 0.1 us accuracy
- Allows absolute network delay in SFN/T2MI networks to be measured

• Allows absolute Center Frequency Offset measurements on DVB-T/T2

ASI
• ASI input according to EN 50083-9, Annex B
• Supports Burst mode, Spread Mode and legacy M2S
• Output selectable feed from ASI, DVB-T/T2/C or DVB-S/S2 input
• Up to 211Mbit/s incoming rate (linespeed ASI)

PHYSICAL SPECIFICATIONS
• Dimensions: width x length x height (mm): 180x230x20
• Weight: 0.9 kg
• Power usage (max): 22 Watts
• Power supply: External power unit +12V, 1.8A (included)
• Operating temperature: -20 up to +45 degrees C
• Operating humidity: 5% up to 95% non-condensing
• Initial setup by Wi-Fi, Ethernet or separate USB Type-A cable (included)

Software Options

Information is not available online for this product. Please contact your representative.

Ordering Codes

NOMAD – Ultra-Portable Probe, IP/Ethernet, ASI, Terrestrial (DVB-T/T2), Satellite (DVB-S/S2), Cable (DVB-C) and WiFi interfaces
Includes: IP-OPT, OTT-ENG-OPT, AEO-OPT, ETR290-OPT, T2MI-OPT, SCTE35-OPT, FLASH32-OPT, VB252-ARF-OPT *(European version)*

NOMAD-US – Ultra-Portable Probe, IP/Ethernet, ASI, ATSC Terrestrial & Cable (8VSB/QAM-B/DVB-C), Satellite (DVB-S/S2) and WiFi interfaces
Includes: IP-OPT, OTT-ENG-OPT, AEO-OPT, ETR290-OPT, VB252-ARF-OPT, SCTE35-OPT, FLASH32-OPT *(US version)*

NOMAD-PRO – Ultra-Portable Probe, IP/Ethernet, ASI, Terrestrial (DVB-T/T2), Satellite (DVB-S/S2), Cable (DVB-C) and WiFi interfaces
Includes: IP-OPT, EII-OPT, OTT-ENG-OPT, 2nd OTT-ENG-OPT, AEO-OPT, BULK-ETR290-OPT, T2MI-OPT, SCTE35-OPT, FLASH32-OPT, VB252-ARF-OPT, EXTRACT-OPT *(European version)*

NOMAD-PRO-US – Ultra-Portable Probe, contains IP/Ethernet, ASI, ATSC Terrestrial & Cable (8VSB/QAM-B/DVB-C), Satellite (DVB-S/S2) and WiFi interfaces
Includes: IP-OPT, EII-OPT, OTT-ENG-OPT, 2nd OTT-ENG-OPT, AEO-OPT, BULK-ETR290-OPT, SCTE35-OPT, FLASH32-OPT, EXTRACT-OPT *(US version)*

Documentation

[User Manual – Download](#)

[Quick Start Guide – Download](#)

Related Products

microVB™ SYSTEM

HOME NETWORKS

VB120

IP MONITOR PROBE