

Ultra-Portable IP/RF Monitoring Probe

VideoBRIDGE Nomad



Preliminary Datasheet

Content subject to change

OVERVIEW

With support for every modern media technology, Nomad is the Swiss Army knife of digital media monitoring, enabling instant understanding and deep analytics of OTT multiscreen streams like HLS and DASH, IP multicasts, SDI/ASI, satellite, terrestrial and cable sources. Nomad covers 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 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 analyze 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 behaviors without the need for deep operator knowledge of the media technology used. Cut from a single brick of aluminum, 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 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. 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.

FUNCTIONS

- The patented MediaWindow™ is built in, giving easy understanding and visibility into packet streams. With full Ethernet traffic breakdown, every protocol transported can be viewed and understood. Similarly with the RF interfaces, traditional constellation diagrams enable at-a-glance understanding of signal behavior and quality. Accurate metrics are a key element in providing state-of-the-art measurements that are unrivalled in its class.
- Nomad features 32GB of Flash memory enabling recording of live streams from any input to memory for documentation. Also included is an alarm-triggered recording for later review for multiple sources, all accessible from the web browser. Live, unprocessed streams can be viewed via the built-in Wi-Fi or via the management Ethernet interface. Full Ethernet frame PCAPs can also be recorded to onboard RAM, and downloaded to analyze in Wireshark.

ANALYTICS

- Through packet inspection, TS analysis is built in with the award-winning ETR290 Engine, enabling deep understanding of TS streams. IP packet traffic is viewed in real-time, and broken down into individual protocols, giving an unprecedented and simplified understanding of otherwise complex structures in the transport mechanics.
- Total passing of OTT multiscreen playlist and manifest files secures coherence and standards, with full insight into chunk availability, download times, sequence latency, profile alignment and much more. Nomad is at the forefront of HLS and DASH understanding and analytics. The same goes for the diverse RF interfaces. Full RF metrics, with best-in-class specifications, visualizations of constellation diagrams and advanced analytics like reflections in digital terrestrial networks are all examples of advanced functions not normally found in affordable equipment of this class.

SPECIFICATIONS

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

Wi-Fi

Provides 2.4 GHz Wireless Access Point service
No setup - Nomad is Wi-Fi 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

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

1PPS

Offers GPS synchronization down to 0.1 μ s 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

Dimensions	width x length x height (mm): 180x230x20
Weight	0.9kg
Power Usage (Max)	22Watts
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)	