

HyperArray (Very High Density) Voice Packetizer



The OptiLogix HyperArray is a Very High Density Voice Packetizer for building large scale Analog, Digital handset and E1/T1 PRI based TDM Call Recording systems.

The Dual-PSU 3U 19" rackmount models can non-intrusively tap and convert up to 900 TDM channels (30 E1's) into IP streaming packets. 10 or 15 hot-swap slots are available to build mixed recording interface solutions whereby all type of interfaces can be combined.

Embedded DSP arrays for D-channel decoding, voice processing and IP packet streaming.

Rugged design, low power consumption, redundant front accessible hot-swap power supplies and Analog, Digital and TDM module hot-swapability results in unmatched reliability.

D-channel signalling supports Call Setup, Connect, Clear, DDI number and CLI number decoding. Supports all major ISDN variants, QSIG, DASS-2 and DPNSS.

Generic IP stream format (the OptiLogix HyperStream format) for using HyperPacket devices with your own Windows or Linux based recording software.

Despite the large number of recording channels possible, usually only a single (virtual) recording server is required.

Features and Benefits

3U height 19" rackmount models with 10 or 15 slots (up to 600 or 900 TDM channels)

Non intrusive and virtually undetectable high impedance passive monitoring

Dialled number and Caller ID signalling support (PRI and Analog interfaces)

Remote TCP/IP accessibility for system configuration and FLASH memory upgrading

Fully stand-alone embedded operation

Supports the 64kbit/s A-law HyperStream format for smooth integration with Windows and Linux servers

Optional Dual-Stream license available for streaming to two recording servers.

Redundant front accessible hot-swap power supplies and hot-swap facility for the plug-in streaming modules

CE, UKCA, FCC and RoHS 3 compliance

Technical Specifications

Mechanical characteristics:	3U height 19" rack with 10 or 15 slots
Operating temperature:	0°C to +60°C
Humidity:	5% to 80% non-condensing
Power requirements (115V version):	100V - 120V AC 50-60Hz (two IEC power sockets)
Power requirements (230V version):	200V - 240V AC 50-60Hz (two IEC power sockets)
Operating systems:	Operating system independent
API:	TCP/IP based API and UDP based audio streaming

Interface Specifications

Primary Rate interface:	E1 (2.048Mbit/s), T1 (1.544Mbit/s)
AC impedance:	1100 Ω
Maximum tap length:	10 m (unterminated), 100 m (terminated)
Protocols:	All major ISDN variants, QSIG, DASS-2 and DPNSS
Basic Rate interface:	4 wire S ₀ bus
AC impedance:	Line Matched
Maximum tap length:	500 m
Protocols:	Euro-ISDN
Digital handset interface:	2 wire bus
AC impedance:	Line Matched
Maximum tap length:	Typical 500 m (PBX model and cable quality dependent)
Protocols:	All major PBX supported (DigitalVox audio triggering)
Analog handset / trunk interface:	2 wire voltage start or line level audio triggering (Vox)
DC/AC impedance:	Infinite / 3000 Ω
Total Harmonic Distortion (THD)	-36 dB (1.6%)
Signal to Noise Ratio (SNR)	-48 dB
Signal crosstalk	-78 dB
Maximum tap length:	5000 m
Signalling:	Ring detection, voltage detection, DTMF detection for dialled numbers, FSK Caller ID detection, voice activity detection

Audio Processing

Upstream and downstream audio gain:	Programmable via TCP/IP
Frequency response:	300 - 3400Hz
Speech encoding/compression:	64kbit/s A-law (G.711)

Safety and EMI Certifications

Safety, emissions, immunity, EMC:	EN-62368-1, EN-61558-1/-2-16, EN-55032, EN-55035, EN-61000-3-2 (NEN- for CE, BS for UKCA)
Compliance:	CE, UKCA, FCC and RoHS 3
Estimated MTBF:	600.000 hours
Warranty:	2 years

The OptiLogix policy is one of continuous development and consequently the equipment may vary in detail from the description and specification in this publication