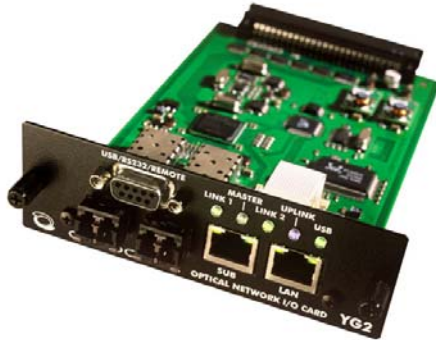# DATA SHEET

YG2 / YS2

MINI-YGDAI CARDS FOR YAMAHA DEVICES

OPTICAL DIGITAL

NETWORK DEVICE

Product Features

- **Mini – YGDAI Cards for Yamaha devices.**

- **Transmission of up to 64 in- and 64 outputs at YG2 to and from the network**

- **Exchange of up to 16 input and 16 output channels at internal slot by YG2 and YS2 cards**

- **Word clock exchange via slot**

- **2 x RS422 interfaces for the exchange of control data. (e.g. DMX, Yamaha HA Remote data**

- **2 x RS422 via slot for Yamaha HA Remote data**

- **2 optical 1 Gbps LINK interface with duplex LC-connectors**

- **1 RJ45 LAN port for connection of any standard 10/100MBit Ethernet device**

- **RJ45 SUB port for connection of additional YS2 cards via CAT5**

- **Upgradeable internal logic**

- **USB/RS232/Remote (D-Sub-9) port for configuration, control and RS422 transmission**

The Y-Series Network Modules are designed for the use in all Yamaha devices with Mini - YGDAI-Slots.

The main card YG2 includes the 'heart of Optocore' allowing a direct connection of Yamaha digital consoles and other devices to the OPTOCORE ® OPTICAL DIGITAL NETWORK SYSTEM. Up to 64 audio inputs and 64 audio outputs can be transmitted to and from an YG2 via the optical interface of the YG2 card. Supporting both Yamaha standards 16 IN and 16 OUT (e.g. PM5D, M7CL, DME64N) or 8 IN and 8 OUT (e.g. DIO8 for PM1D, DME32), the audio channels are passed through the internal slot interface. In order to make further channels available the Sub Card YS2 is used in additional slots. With one YG2 and three YS2, simply connected by standard CAT5 cables, a total of 128 channels can be achieved. A number of YG2 cards can be inserted into the slots of one device to extend the number of channels handed over to the Optocore network, e.g. a maximum of 128 IN and 128 OUT by inserting two YG2 cards in a Yamaha PM1D system.

Direct control of Optocore mic-preamps from the console is possible. Two RS422 ports allow the direct transfer of Yamaha Remote or other control protocols via Optocore.
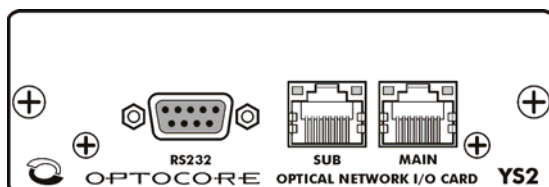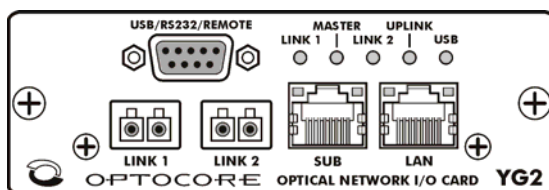
HA Remote signals can be picked up directly at the console slots. The word clock is exchanged at the slots as well. In addition, the 10/100 MBit Ethernet interface enables the connection and transfer of any data compatible with the Ethernet protocol.

Optocore YG2 / YS2 modules are the perfect link between the world of digital sound processing and audio networking, supporting future developments of both. YG2 / YS2 cards offer a broad flexibility in all sorts of temporary and permanent applications, especially when long distance connections, high-quality audio transmission, extremely low latency or high security is required. Distances from 700 m up to 70 km can be covered depending on the fiber optic transceivers.

Through the USB/RS232/Remote port of the YG2 card, OPTOCORE CONTROL software provides easy access to all configuration and control tools.

Due to SMD production the YG2 / YS2 cards fulfils the demand of highest digital standards. The FPGA (field programmable gate array) based concept of the internal logic circuitry, permits updating of the hardware, ensuring continual state-of-the-art cards.

Line Drawings

Technical Specifications

YG2 Card

Digital Audio (Mini - YGDAI Slot)	Convention Mini - YGDAI Interface	
HA-Remote (Mini - YGDAI Slot)	Convention Mini - YGDAI Interface	
Data channels	Digital control data	TX / RX up to 1Mbps
Auxiliary Ports	Convention EIA / TIA - 422	
Data channels	Digital control data	1 IN / 1 OUT up to 1Mbps
Word Clock (Mini - YGDAI Slot)		
Data rate	Dependant on used sample rate	44.1 / 48 / 88.2 / 96kHz +/-100ppm
Link	Input, Output, Dual – Full bandwidth	
Connection		Duplex LC
Digital Optical Network System		Optocore
Transmission art		Full duplex
Data rate		2 x 1Gbps
Optical wave guide cable lengths	Multimode fiber 50µm	≤ 700m
	Monomode fiber 9µm	up to 70km (on request)
SUB Port	Convention Optocore 64 channel CAT5	
Cable Type	ANSI/TIA/EIA-568-A, TSB-95	CAT5
Max. Cable length		10 m / 33 feet
Remote Control		
RS232	Convention EIA / TIA-232	R x D, T x D / 57 600 Baud
USB Port		Interface to PC
Dimensions		1 RU / 19"
W x H x D	100 x 160 x 40 mm	3.94 x 6.3 x 1.57 inch
Weight	365 g	12.88 ounces

YS2 Card

Digital Audio (Mini - YGDAI Slot)	Convention Mini - YGDAI Interface	
SUB / MAIN Port	Convention Optocore 64 channel CAT5	
Cable Type	ANSI/TIA/EIA-568-A, TSB-95	CAT5
Max. Cable length		10 m / 33 feet
RS232 Port	Convention EIA / TIA - 232	
Data channels	Digital control data	R x D, T x D
Data rate		57 600 Baud
Dimensions		1 RU / 19"
W x H x D	100 x 160 x 40 mm	3.94 x 6.3 x 1.57 inch
Weight	175 g	6.17 ounces