AGB240

ASI to Gigabit Ethernet Bridge

An Ultra-Low Power Device that Migrates Legacy ASI Video Service Outputs to the IP Backbone

Highlights Include:

- Maps up to 24 MPEG2 Transport Streams from ASI to IP

- 931Mbps aggregate bridge bandwidth

- Less than 20W maximum power draw

- Mounts in 1 RU (rack unit)

- 24 ASI input ports

- Extended reach ASI cables up to 1,000 feet / 300 meters

- Front panel ASI monitor port

- Null removal option

- When null-removal is active, PCR correction

- When null-removal is active, CBR transport stream output 10/100 Ethernet control interface

- Choice of copper (included) or SFP Gigabit Ethernet connection

- Redundant internal power supply, unit runs on single power supply

- Built in surge protection

- Rear panel grounding lugs

- Dual 10/100 Ethernet ports for redundant control path

- Web-based User Interface for easy setup and diagnostics

- Basic SNMP agent

- Front panel LEDs for at-a-glance diagnostics

For more information regarding any of these features contact your Motorola sales representative.

The Motorola AGB240 delivers highly reliable ASI to Gigabit Ethernet bridging for legacy video services. It is intended to bridge traffic from ASI-output IRDs, Encoders, video routers, and other video sources to a common Gigabit Ethernet IP backbone or transport network.

ASI inputs typically carry either pure TS payload, or TS with null stuffing. For example, if the AGB240 has inputs of 54Mbps streams with null stuffing, it can be configured to operate in two modes. In null-stripping mode, up to twenty-four (24) such inputs with TS payload of no more than 38.8Mbps can be bridged, the AGB240 will strip nulls and recalculate the PCR for each stream, and output all TS on the GbE interface. In pass through mode, up it could accept seventeen (17) 54Mbps streams with a combined output of 918Mbps on the GbE interface.

The front panel of the AGB240 includes at-a-glance LED status for all major functions, as well as the access point for the payload Gigabit port, the 10/100 control ports, and the ASI monitor port. The LEDs include individual LEDs for each of the twenty-four ASI inputs, a power supply status LED, plus the Ethernet status LEDs. Both control ports can be active simultaneously providing a redundant dual path access to the unit for remote diagnostics. The Gigabit Ethernet provides a single port for IP payload output. The user may select whether to connect the AGB240 to the IP backbone via copper or optical SFP.

TECHNICAL SPECIFICATIONS

ASI Input

24 rear-mounted ASI input ports

BNC female connector

Input Impedance : 75 Ω

Individually configure as receiver, or muted

Coax cable length up to 1,000 feet / 300 meters

MTS Stream Processing

Up to 213.73 Mbps per ASI input

188-byte MPEG-2 TS packets, burst or byte mode

Input MTS may be CBR or VBR

Video/Audio MTS bit-rate from 192Kbps to 213.73Mbps

Data MTS bit-rate from 192Kbps to 213.73Mbps

MTS pass-through mode with no null removal or PCR restamping

Optional null removal to meet configured CBR bit rate

PCR re-stamping +/- 75 nanoseconds, CBR output enabled when null removal is configured

Auto packet drop if configured MTS rate is exceeded

Gigabit Ethernet Output

One configurable Gigabit Ethernet output (either included RJ-45 or SFP)

931.45 Mbps aggregate Ethernet payload output

Latency from time of ASI arrival to GbE output: 100 µseconds

IEEE 802.3 compliant

Up to 24 MPEG-2 TS output over UDP

Maximum bit-rate of each MTS output is the configured rate

IPv4 Source/Dest address, and Source/Dest UDP address

IPv4 Dest address may be multicast

10/100 Ethernet Control

Dual RJ-45 connectors provide option for redundant control path

Static IP address (default) or DHCP

Recessed IP reset switch on front panel restores IP address, netmask to default

UI includes administration, configuration, monitor, status

Supports firmware update

Non-volatile storage of factory firmware and one working firmware image

Non-volatile configuration storage

Non-volatile storage of 200 most recent events

Basic SNMP Agent provides device identity information, status, and SNMP traps

Internal clock or SNTP

ASI Monitor Port

1 (one) front-mounted ASI monitor port

BNC female connector

Input Impedance : 75 Ω

Monitor any MPEG-2 TS immediately after receive at ASI input

Monitor any MPEG-2 TS immediately before transmit at Gigabit output

Physical

Width:	19", mounts in 19" rack
Depth:	12.75" including connectors
Height:	1.75" mounts in one RU space
Mounting Weight:	Six pounds (6 lb)
Power Input:	90-264 VAC, 47-63Hz, 20 W max

Redundant internal power supply, unit operates on single power supply

Internal surge protector

Operating Temperature:	0C to 50C
Operating Humidity:	5 to 95%, relative maximum
Operating Altitude:	-200 to 10,000 feet
Storage Temperature:	-40C to 70C
LEDs:	24 ASI, 1 power, status for each Ethernet port

Dual lug chassis ground on rear panel

Regulatory

Electromagnetic Compatibility (EMC):

US: FCC Part 15 Class A

Canada: ICES-003 Class A

European Union (EU) - CE Mark: EN 55022:2006/A1 Class A Emissions, EN 55024 Immunity

Australia: C-Tick Mark

Other Nations: CISPR 22 Class A Emissions

Safety:

US/Canada: UL Listed to UL 60950-1 Second Edition

European Union(EU) - CE Mark: EN 60950-1 Second Edition

Argentina: UL-AR / S-Mark

Other Nations: CB Scheme Certificate IEC 60950-1 Second Edition

Ordering

AGB240 24-port ASI to Gigabit Bridge, Motorola Part #573546-001-00

850nm SFP Motorola Part #551742-002-00

1310nm SFP Motorola Part #551755-001-00

1550nm SFP Motorola Part #551767-001-00

1000bT (copper) SFP Motorola Part #551771-002-00

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