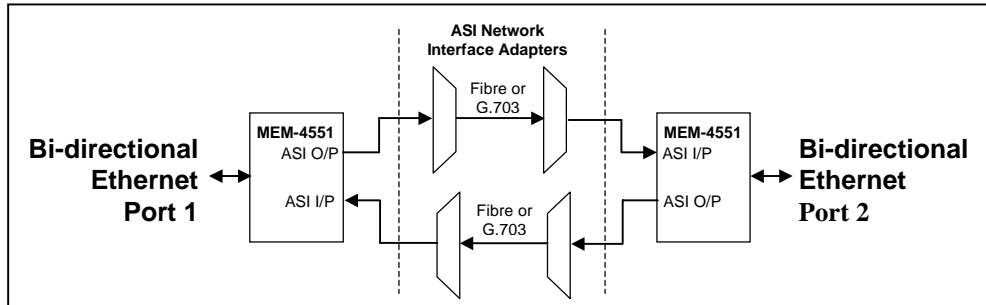


Ethernet to ASI Network Interface Adapter Type MEM-4551

Application Diagram:



Features:

- Ethernet to ASI / ASI to Ethernet conversion
- Ethernet port automatically set for 10/100/Half/Full operation
- Automatic MDI/MDI-X port
- 32 ASI rates between 1 Mb/s and 108 Mb/s
- Optional plug-in SNMP monitoring and control module

General:

The MEM-4551 acts as a gateway between an Ethernet network and an ASI environment.

The MEM-4551 generates a compliant DVB ASI transport stream, with a settable Program Number identifier, at a fixed settable data rate. When Ethernet data is available to send it is encapsulated into ASI packets. When there is no Ethernet data available, NULL packets are used to stuff the ASI stream to the selected rate.

On the receive side packets containing Ethernet data are extracted from the ASI stream by reference to the assigned Program Number.

The MEM-4551 acts as an Ethernet bridge. A dynamic MAC address table is formed over time, which allows filtering of the Ethernet packets being forwarded through the ASI link.

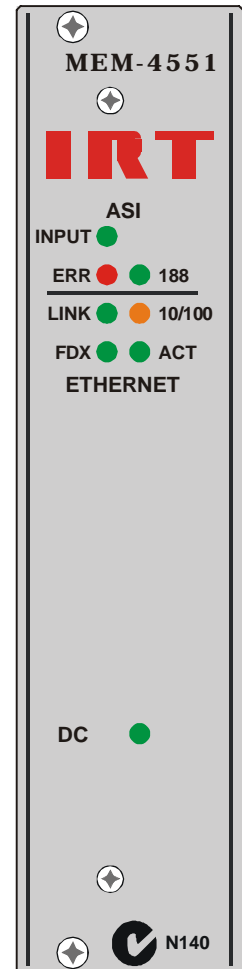
The Ethernet port is set up automatically to accommodate most network environments. The ASI output rate is switch selectable to operate at a payload data rate of between 1 Mb/s and 108 Mb/s.

The Ethernet port has automatic MDI/MDI-X detection. This detects whether the Ethernet interconnect cable is a straight through or cross over type and automatically switches itself to accommodate.

The output ASI stream is suitable for transfer by any ASI type of signal path, such as IRT's ASI single and MUX fibre link cards. Also G.703 rates are available on the output to cooperate with ASI-G.703 products. For full duplex action a return link is required.

An optional SNMP (Simple Network Management Protocol) plug in module is available for remote monitoring and control when used in conjunction with IRT's 4000 series frame fitted with SNMP capability.

The MEM-4551 is designed to fit IRT's standard Eurocard frames as well as IRT's 4000 series frame for use with IRT's SNMP system and may be used alongside any other of IRT's analogue or digital Eurocards.



MEM-4551 Technical Specifications

Ethernet

Type Standard IEEE 802.3
Data Rate 10/100 Mb/s
Connector RJ-45

ASI Output

Type 1 x ASI-C 75Ω, 800 mVp-p, BNC connector
Payload Rate 32 settings 1 to 25 (in 1Mb steps), 30, 34.368, 36, 44.736, 54, 72, or 108 Mb/s (set by on board switch settings)
Program Number 4550, 4551, 4552 or 4553 (set by on board switch settings)
Signal level 800 mV ± 10%
Impedance 75 Ohm.
Return loss >20 dB 5 MHz to 270 MHz.

ASI Input

Type 1 x ASI-C 75Ω, BNC connector.
Return Loss >20 dB 5 MHz to 270 MHz.
Equalisation <300 metres at 270 Mb/s for Belden 8281 or equivalent cable.

Alarms

Minor Open circuit on loss of ASI.
Major Open circuit on loss of Ethernet link.

Front Panel Indicators

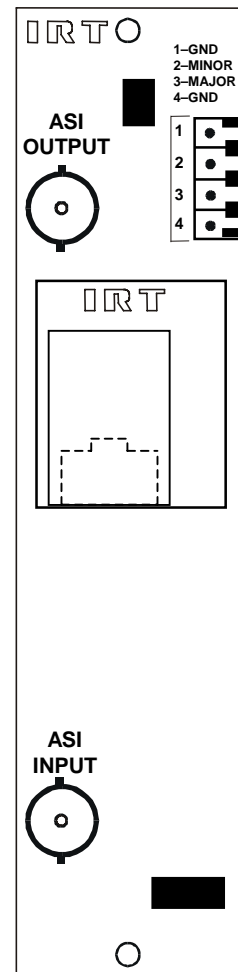
Ethernet:	LINK	Ethernet link connected – Green
	10/100	Rate - 10 Mb/s Orange, 100 Mb/s Green
	FDX	Full Duplex Mode - Green
	ACT	LAN Activity - Green
ASI:	INPUT	ASI Carrier detected - Green
	ERR	Error in ASI input – Red
	188	Input ASI 188 byte – Green

Power Requirements

Power consumption 28 Vac CT (14-0-14) or ±16 Vdc
<5 VA.

Other

Temperature range 0 - 50° C ambient
Mechanical Suitable for mounting in IRT 19" rack chassis with input, output and power connections on the rear panel
Finish Front panel Grey, silk-screened black lettering & red IRT logo
Rear assembly Detachable silk-screened PCB with direct mount connectors to Eurocard and external signals
Dimensions 6 HP x 3 U x 220 mm IRT Eurocard
Optional accessories SMU-4000 plug in SNMP Management Information Base (MIB) module.



Due to our policy of continuing development, these specifications are subject to change without notice.

Detailed specifications available from:

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IRT Electronics Pty Ltd
26 Hotham Parade
ARTARMON
N.S.W. 2064 AUSTRALIA
Phone: +61 2 9439 3744
Fax: +61 2 9439 7439
Email: sales@irtelectronics.com

Local Agent:

IRT can be found on the Internet at:
<http://www.irtelectronics.com>