



- 4 or 8 Video Point to Point
- ↔ up to 16 Data/Audio
- ↔ Ethernet

OPTICAL
FIBRE
TRANSMISSION



Guardian-Lite™ 4700 Series

Point to Point

CCTV fibre optic solutions

4 & 8 channel point to point singlemode fibre optic video transmission system with a choice of data/audio and Ethernet



Features

- **Real time digital transmission format** no signal quality degradation with distance
- **Wide link dynamic range** no link margin adjustment required for installation, just plug in and switch on
- **Single fibre** as well as dual fibre configurations
- **Simultaneous multiple video, Ethernet, data and audio transmission** covers all signal transmission needs on one set of equipment
- **Plug in module for AMG2000 and AMG2005 19" subracks** ability to mix multimode and singlemode products in the same rack
- **Front panel LED status indicators** at a glance status monitoring
- **Data interface daughter board configurable** ability to address any interface protocol
- **Standalone and rackmount formats** minimum space usage
- **SNMP** compliant network management for remote fault reporting and diagnosis

The Guardian-Lite™ 4700 series is designed for low cost multi-channel point to point video transmission over singlemode fibre, together with associated Ethernet and low speed data and audio signals.

The system can provide a highly resilient, managed, low cost, transmission system for both compressed and uncompressed video signals. It allows the user to pick and choose the best from all technologies both now and in the future, by making sure the system can cater for all the future needs from the outset.

The video is transmitted in a real time full bandwidth digital format. This ensures high quality transmission regardless of distance. As no compression of the video is used, there is no compromise on quality or latency.

When configured in a dual redundant option Guardian-Lite™ 4700 ensures no loss of signal during a catastrophic fibre failure.

Guardian-Lite™ 4700 can be delivered with a dedicated Network Management System (NMS) providing alarms associated with the breaks in the optical fibre together with loss of video signals. The NMS system can also operate with SNMP management.

For drop and insert options see the data sheet for the Guardian-Lite 3700 Series.

Applications

- Transportation
 - Road
 - Rail
 - Metro
 - Light rail
- Security and surveillance
- Industrial sites
- Inter and intra town and city centres
- Campus sites
- Personal help points
- Government agency applications

POINT TO POINT - SINGLEMODE FIBRE

AMG Systems Limited reserves the right to change the specification without notice. The information herein is believed to be reliable and accurate, however no responsibility is assumed by AMG Systems Limited for its use. Document No. D14369-03





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Specifications

Video

Input/output level	1V pk to pk +3dB overload
Input/output impedance	75 Ohm unbalanced
Frequency response	10Hz to 5.75MHz min (7.5MHz cut off)
Differential gain	2%
Differential phase	2°
Signal to noise ratio	67dB (10 bit digitisation)
Video connector	BNC

Data/Audio

Channel A – Data only

Data rates	Up to 512 KB/s
Data interface options	RS422, RS485 or RS232 selected by external switch
Data connector	RJ45

Channel B – Data or audio

Data rates	Up to 512 KB/s
Data interface options	Determined by data interface daughter board – see list
Data connector	RJ45

Expanded Data - Data or audio

Date rates	Up to 512KB/S
Data Interface options	Determined by data interface daughter board – see list
Data connectors	37 way D-Type (female)

Ethernet

Data interface options	100BaseT full duplex
Data connector	RJ45

Optical

Wavelength	1310/1550nm
Fibre dimensions	Singlemode
Fibre core quantity	One for video only, One/Two for video and data
Optical connector type	LC on rear panel
Path loss	17dB min dual fibre 15dB for single fibre (greater path loss available)

General

Operating temperature	-15 to +70 C
Operating humidity	0 to 95% non condensing
Emissions	CE approved
Mechanical	3U x 14HP x 170mm (plug in or standalone module)
Power requirements	+12V to +18V DC @ 500mA
Indicators	Front panel LED status indicators

Ordering details

AMG4741	- 4 channel video only Tx
AMG4742	- 4 channel video only Rx
AMG4781	- 8 channel video only Tx
AMG4782	- 8 channel video only Rx
AMG4743	- 4 channel video Tx + data channel A & B Tx/Rx
AMG4744	- 4 channel video Rx + data channel A & B Tx/Rx
AMG4783	- 8 channel video Tx + data channel A & B Tx/Rx
AMG4784	- 8 channel video Rx + data channel A & B Tx/Rx
AMG4745	- 4 channel video Tx + Ethernet
AMG4746	- 4 channel video Rx + Ethernet
AMG4785	- 8 channel video Tx + Ethernet
AMG4786	- 8 channel video Rx + Ethernet
AMG4747	- 4 channel video Tx + 16 Data/Audio**
AMG4748	- 4 channel video Rx + 16 Data/Audio**
AMG4787	- 8 channel video Tx + 16 Data/Audio**
AMG4788	- 8 channel video Rx + 16 Data/Audio**
AMG4747A	- 4 channel video Tx + 8 Data/Audio**
AMG4748A	- 4 channel video Rx + 8 Data/Audio**
AMG4787A	- 8 channel video Tx + 8 Data/Audio**
AMG4747A	- 8 channel video Rx + 8 Data/Audio**
AMG4747B	- 4 channel video Tx + data channel A + 8 Data/Audio**
AMG4748B	- 4 channel video Rx + data channel A + 8 Data/Audio**
AMG4787B	- 8 channel video Tx + data channel A + 8 Data/Audio**
AMG4788B	- 8 channel video Rx + data channel A + 8 Data/Audio**
AMG4747E	- 4 channel video Tx + 8 Data/Audio** + Ethernet
AMG4748E	- 4 channel video Rx + 8 Data/Audio** + Ethernet
AMG4787E	- 8 channel video Tx + 8 Data/Audio** + Ethernet
AMG4788E	- 8 channel video Rx + 8 Data/Audio** + Ethernet

RACKMOUNT UNITS

For the rackmount option add 'R' suffix to the part number, e.g. **AMG4784R**

SINGLE FIBRE UNITS

For the single fibre option add 'SF' suffix to the part number, e.g. **AMG4784-SF** or **AMG4784R-SF**

NETWORK MANAGEMENT SYSTEM UNITS

For the NMS option add 'N' suffix to the receiver part number, (not applicable to transmitters) e.g. **AMG4784RN**

**EXPANDED DATA

8 or 16 channels of bi-directional data using data daughter boards

DAUGHTER BOARDS

X04049 – RS232	X04057 – RS422/485
X04058 – 20mA current loop	X13038 – FTT10A Lonworks
X04059 – TTL	X12578 – Contact closure
X12542 – Audio (4 wire)	

See specific data sheets for:

- Dual redundant options
- CWDM options – up to 64 cameras per fibre
- Multimode fibre options - AMG4600 Series
- Drop and insert options - AMG3700 Series

Configuration Options

