

Guardian-Lite™ 3700 Series

Drop and insert **CCTV fibre optic solutions**

8 channel drop & insert single mode transmission system with data/audio or Ethernet

The Guardian-Lite™ 3700 series is designed for low cost multi-channel video collection and distribution over singlemode fibre, together with associated Ethernet or 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. The unique drop and insert system provides for significant cost savings on the infrastructure without any increase in equipment cost.

The system can be configured to collect individual, or multiple video signals e.g. along a highway, a rail link or airport perimeter in a 'daisy chain' and transmitting them all, up to 64 on one fibre, back to one or multiple control rooms.

This allows for significant savings on fibre optic infrastructure when compared with traditional methods of video collection.

Architectures can be configured as a 'spur' or a 'ring'. When configured in a dual redundant option Guardian-Lite™ 3700 ensures no loss of signal following a catastrophic fibre failure or node failure.

Guardian-Lite™ 3700 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.



Features

- **Full bandwidth digital transmission format** no compromise on video quality
- **Real time video – no compression**, no inherent latency
- **Wide link dynamic range** just plug in and switch on
- **Single fibre operation** reduced infrastructure requirement
- **Multiple simultaneous video plus data transmission** enables remote control of camera functions plus bi-directional data
- **Multiple 'drop off' points** easy routing for multiple control rooms
- **Standalone and rackmount formats** minimum space usage
- **Simultaneous 100BaseT Ethernet and video transmission option** allows connection to both analogue and IP cameras
- **Unlimited repeat** for long distance transmissions
- **SNMP compliant network management** for remote fault reporting and diagnosis

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

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 connectors	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 connectors	RJ45

Ethernet

Data interface options	100BaseT full duplex
Data connectors	RJ45

Optical

Wavelength	1310/1550nm
Fibre dimensions	Singlemode (multimode version available)
Fibre core quantity	One in, one out
Optical connector type	LC on rear panel
Path loss	17dB min dual fibre (greater path loss available)

General

Operating temperature	-15 to +65 C
Operating humidity	0 to 95% non condensing
Emissions	CE approved
Mechanical	3U x 7HP/14HP x 170mm (plug in or standalone module)
Power requirements	+12V to +18V DC @ 500mA
Indicators	Front panel LED status indicators

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. D14370-01

Ordering details

VIDEO AND BI-DIRECTIONAL DATA

AMG3783-1	- 1 channel video insert & data (1310nm)
AMG3783-2	- 2 channel video insert & data (1310nm)
AMG3783-4	- 4 channel video insert & data (1310nm)
AMG3784	- 8 channel video Rx & data (1310nm)
AMG3788	- 8 channel video Rx & expanded data (1310nm)**

AMG3783-1-1550	- 1 channel video insert & data (1550nm)
AMG3783-2-1550	- 2 channel video insert & data (1550nm)
AMG3783-4-1550	- 4 channel video insert & data (1550nm)
AMG3783-1550	- 8 channel video insert & data (1550nm)
AMG3784-1550	- 8 channel video Rx & data (1550nm)
AMG3788-1550	- 8 channel video Rx & expanded data (1550nm)**

RACKMOUNT UNITS

For the rackmount option add 'R' suffix to the part number, e.g. **AMG3782R**

NETWORK MANAGEMENT SYSTEM UNITS

For the NMS option add 'N' suffix to the receiver part number, (not applicable to transmitters) e.g. **AMG3783RN**

DATA CHANNEL B DAUGHTER BOARDS

X04049 – RS232	X04057 – RS422/485
X04058 – 20mA current loop	X13038 – FTT10A Lonworks
X04059 – TTL	X12578 – Contact closure
X12542 – Audio (4 wire)	X16003 – Ethernet

**EXPANDED DATA

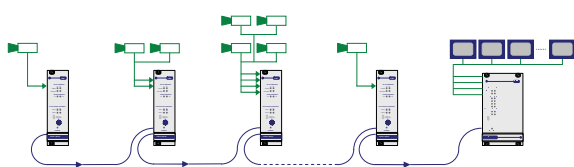
16 channels of bi-directional data using data daughter boards

See specific data sheets for:

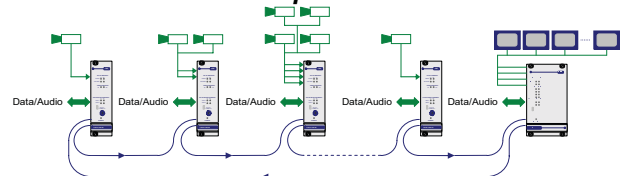
Dual redundant options
CWDM options – up to 64 cameras per fibre
Multimode fibre options - AMG3600 Series
Point to point options – AMG4700 Series

Configuration options

8 channel video only



8 channel video plus data/audio



8 channel video plus Ethernet

