

AMG Videowave 5800 Series



DESIGNED IN BRITAIN.
MADE IN BRITAIN.

Wireless Video Transmission

AMG's Videowave 5800 series of wireless video transceivers supports up to 4 channels of analogue video. Additional options allow up to 64 channels of telemetry with alarm and audio channels.

As with all AMG modem products, the Videowave 5800SED video and telemetry transceivers provides fully transparent operation regardless of the serial data protocol. Over-air speeds of up to 16Kbps are achievable and serial data can be input at baud rates up to 19200bps.

Access to all user configurable parameters is possible using the on-board switches and operational status is easily monitored using the standard LED indicators.

The AMG5820 allows transmission of an analogue video signal with the option of up to 10 channels of RS485 telemetry data over short to medium distance (up to about 500m).



VTX5800SE in IP67 Enclosure

Features

- Enables wireless connection of PTZ and Dome Cameras to monitoring and recording equipment
- Licence exempt operation (R&TTE Directive)
 - VideoWave uses 5.725 to 5.875GHz band
 - Telemetry uses 400 to 470MHz band
- 4 Channels, for video
- 64 Channels for Telemetry (15 UK spec)
- Signal strength meter (on receiver)
- 12Vdc or 240Vac mains operation (12Vdc or 24Vac for AMG5820)
- IP67 weatherproof enclosures
- Digital (alarm) channel (5801 version)
- Audio channel, or second alarm channel (5801 version)
- Patch antenna included for Video (1Km range) ½ Wave Whip antenna for Telemetry (5820 has 500m range patch antenna for Video with ¼ Wave Whip antenna for Telemetry)
- Optional antennas available for specialist applications and extended range up to 3Km

Applications

- Security and surveillance
- Industrial sites
- Campus sites
- Personal help points
- ITS and Border Control
- Remote Control Systems
- Warehousing and Dispatch
- Telemetry
- Traffic Information
- Control Systems



Phone: +44 (0) 1767 600 777



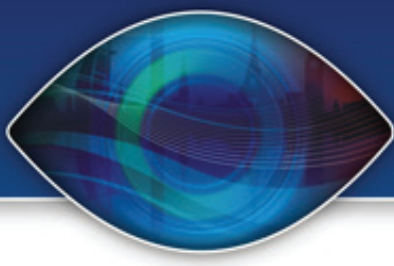
Fax: +44 (0) 1767 600 077



Email: sales@amgsystems.com



Web: www.amgsystems.com



Application Notes

Wildlife Monitoring

RSPB - Dare Valley County Park

Four peregrine chicks have successfully hatched at Dare Valley Country Park, Aberdare. A surveillance operation was put in place at the beginning of the breeding season, to protect this persecuted bird from wildlife criminals.

The nest camera was set up for a dual purpose. To act as a deterrent to anyone who intended to interfere with the nest but also to educate and inform the local people of the surrounding area on the persecution issues that the peregrine faces. Perhaps more importantly, to promote interest in the birds and to enjoy seeing them develop and to try and gain some sort of local community ownership to the birds so they become more protected.

The nest site was about 1.5 Km from the visitor centre. Two sets of VideoWave transmitters and receivers were used as there was no clear "line of site". The equipment was battery powered and two different frequencies were used.



Camera (ringed) situated over the nest of peregrine eggs

Town Centre CCTV

Felixstowe has successfully initiated the fight against crime with the use of a wireless CCTV system, monitored by a group of volunteers who are keen to ensure the safety of the local community. Overcoming issues associated with the geographical layout of the town, the cameras provide the police with the information they need to ensure that any anti-social behaviour is kept to a minimum.

Thanks to a successful bid by the Suffolk Coastal Community Safety Partnership to the Home Office for £37,000, they were able to get sufficient funds to install their first CCTV system. To help plan and install the necessary equipment, Suffolk Council, home to Felixstowe, brought in a local company STC Solutions.

VideoWave transceivers were selected for ease of installation and its ability to use camera installations as relay points thus extending range through the urban environment without loss of image quality.

Vista PowerDome cameras, along with the VideoWave transmitters/receivers, have been fixed to lamp posts in strategic areas of the town. "We used the current infrastructure to help keep costs down," says Mr Skates, Managing Director of STC Solutions. "We've also set the system up so that it can be expanded as further funds become available."

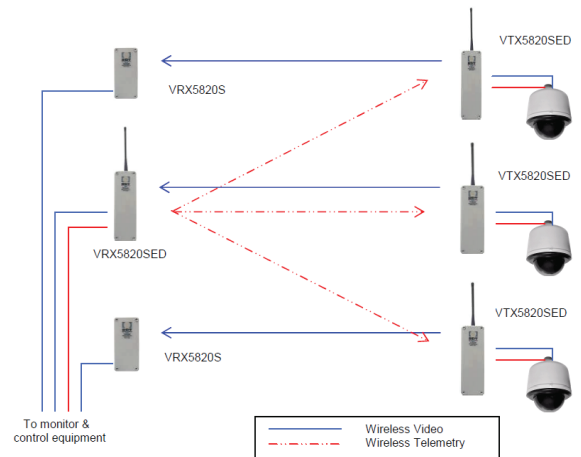


System Layout Examples

Point-to-Point



Multipoint-to-Point



Part Numbers

Part Numbers

Description

Up to 500m with Built-In Antennas

V'Link5820	IP67 Transmitter and Receiver pair (kit) Video transmission only
VTX5820S	Transmitter Only
VRX5820S	Receiver Only

V'Tel5820D	IP67 Transmitter and Receiver pair (kit) Video & Telemetry
VTX5820D	Transmitter Only (with telemetry)
VRX5820D	Receiver Only (with telemetry)

Up to 1Km with Antennas Supplied

VTX5801	Wireless video transmitter with 1x alarm channel and 1x audio channel or second alarm channel
VRX5801	Wireless video receiver with 1x alarm channel and 1x audio channel or second alarm channel

Suffixes

58xxS	12Vdc Videowave link
58xxSE	Mains powered Videowave link
58xxSED	Mains powered Videowave link with Telemetry Modem

e.g. VTX5801SE	Mains powered video only Videowave link
-----------------------	---

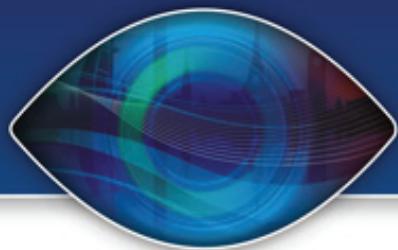
Antennas - For Extending Transmission Distances on 5801 Series and Omni-Directional Multi-Channel Receivers

ANT5803	Whip 3dB gain (Omni-Directional, up to 500m)
ANT5805	Patch 5dB gain (Comes Supplied with 5801 Series)
ANT5808	Dipole 8dB gain with 3m cable (Omni-Directional, up to 1Km)*
ANT5810	Panel 10dB gain with 3m cable (Directional, up to 1.4Km)*
ANT5820	Panel 20dB gain with 3m cable (Directional, up to 3Km)*
ANT5828	Parabolic Dish 28dB with 3m cable (Directional, up to 4Km)
ANT2257	¼ Wave whip antenna

*For use at video receive end.

Power Supply

AMG2001	15Vdc @ 300mA standalone PSU. For Indoor use only.
----------------	--



Specifications

General

Video Input	1V p-p into 75Ω BNC
Video Output	1V p-p into 75Ω BNC
Operating Voltage	
S Series	9-28Vdc
SE and SED Series	240Vac
Protection	Reverse Polarity
Current Consumption @ 12Vdc	
Transmitter	75mA
Receiver	215mA
Power Consumption @ 240Vac	
Transmitter	1W
Receiver	2.6W
Antenna Connector	50Ω SMA (female)
Power Connector	Screw terminal
Indicators	
Channel / ON	7-segment display
Signal strength (receiver)	LED bar graph

SED Series Specifications

Radio Modem

Frequency Range	406-470MHz**
Channel Spacing	25KHz
No of Channels	32
Transmitter	
RF Power Output	50-500mW (in 4 steps)
Adj. Channel Power	-37dBm
Freq. Tolerance	+/- 1KHz
FM Deviation	+/- 3.5KHz
Receiver	
RF Sensitivity	-110dBm for 10 BER
Intermodulation	-70dB
Adj. Channel Rejection	-70dB

5820 V'Link & V'Tel Specifications

Operating Voltage	9-32Vdc or 24Vac
Power Consumption	
V'Link Transmitter	65mA
V'Link Receiver	110mA
V'Tel Transmitter	170mA
V'Tel Receiver	130mA

Radio Modem

Frequency range	433-434MHz
No of Channels	10
Transmitter	
RF Power Output	10mW
Freq. accuracy	± 10ppm
FM Deviation	64KHz
Harmonics	-25dBc

Mechanical

Enclosure	Polycarbonate weatherproof, IP67
Size (H x W x D)*	
S Series	170 x 80 x 65 mm
SE Series	230 x 80 x 65
SED Series	255 x 180 x 80 mm
Weight	
S Series	400g
SE Series	700g
SED Series	1.8Kg
Operating Temperature	-10 to +55°C

Radio

Frequency Range	5725 to 5875MHz
RF Power Output	25mW ERP
Local Oscillator	PLL synthesised
Modulation Type	FM
Modulation Bandwidth	4.5MHz

RSSI Threshold Level	-105dBm at 16K -110dBm at 8K
Max Bit Rate	16Kbps
Modulation	GMSK
Interface Baud Rate	150 to 19.2K baud
Parity	Odd, Even, None
Power Consumption @ 240Vac	
Transmitter at 500mW	7.2W
Receiver	4.2W

Mechanical

Hole Size	4 x 7 mm dia holes
Spacing	238.5 x 163.5 mm

Receiver	
RF Sensitivity	-105dBm
LO leakage	<-60dBm

Antenna	SMA Connector
---------	---------------

Mechanical

Dimensions (H x W x D)*	230 x 80 x 65 mm
Weight	450g

Equipment conforms to the R&TTE Directive 1999/5/EC

*Excluding connectors and cable glands

**UK Specification is 15 channels 458.525 to 458.925MHz

D26002-00



Phone: +44 (0) 1767 600 777



Fax: +44 (0) 1767 600 077



Email: sales@amgsystems.com



Web: www.amgsystems.com