



Sharp Sight of the Ranger

The Ranger is a versatile COFDM H264 digital video transmitter. It provides excellent distance and performance through its range of transmission bandwidths, and it has increased spectral efficiency in the 2 MHz and 1 MHz narrow bandwidth modes. This is the narrowest bandwidth available in any comparable product. The use of 4 MHz or 8 MHz modulation at shorter distances gives broadcast-quality image definition.

The Ranger is particularly well suited to providing robust wireless video links in mobile and non-line-of-sight urban environments, to a range of over 1 km. Built-in AES128/256-bit encryption ensures security – subject to export controls. Various frequency bands are available within 300 MHz to 6 GHz.

An optional PA booster allows the Ranger to transmit over 1 km in a non-line-of-sight environment – depending on mode and frequency. The Ranger is ideal for use in body-worn applications or in fixed deployments.

More Flexibility

- Compatible with industry-standard CCTV systems
- Simplified installation process results in faster deployment.
- Up to 60 cameras supported on a standard COFDM signal.
- A wider choice of surveillance locations are available.

Cost Effective

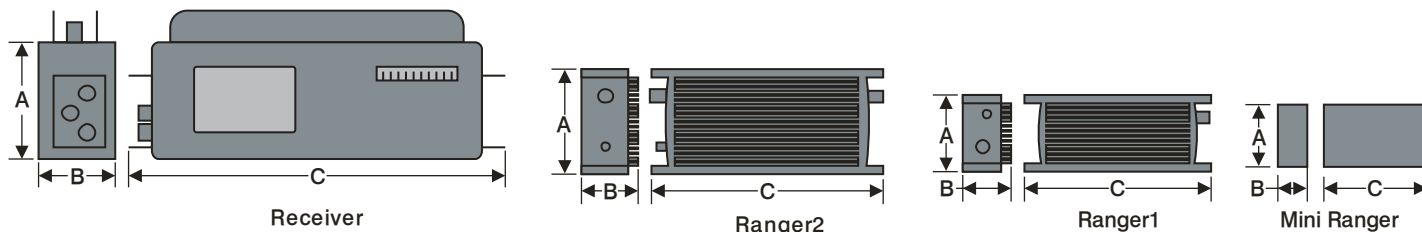
- Expensive fibre links and networks are not necessary

Superior Performance

- Error-correction coding extends range
- Broadcast-quality pictures
- Range of up to 4 km
- Narrow band and ultra narrow band
- Low latency allows for responsive remote joystick control
- Fully encrypted

Applications

- Commercial
- Industrial
- Military
- Police



Receiver	A 114 mm B 60 mm C 272 mm
Ranger2	A 130 mm B 38 mm C 175 mm
Ranger1	A 59 mm B 38 mm C 146 mm
Mini Ranger	A 55 mm B 23 mm C 87 mm (119 mm inc. antenna)

Power Connection	Red/black wire
Channel Selection Switch	Rotary Hex Switch
Video Connection	Screened cable
Audio Connection	Screened cable
Optional Equipment	2 W Power Amp – W 157 x D 93 x H 60 mm 5 W Power Amp – W 157 x D 93 x H 60 mm Stereo Audio

Transmitter – Ranger1 and Ranger2

Compression	H264, JPEG2000 and MPEG4
Compression Rate	650 kbs to 6 mbs
Chrominance Profile	4:2:0
Line Standard	PAL or NTSC
Audio	Stereo
Output Frequency	
UHF	300 MHz – 400 MHz
L Band	1.15 GHz – 1.4 GHz
S Band	2.28 GHz – 2.485 GHz
C Band	5.725 GHz – 5.850 GHz
(Custom frequency bands are available on request)	
AES Encryption	Compliant with ACPO – 128 / 256
Bandwidth & Resolution	
Standard	8 MHz @ QPSK (720 x 576 – D1)
Narrow	4 MHz @ QPSK (720 x 576 – 4CIF) 2 MHz @ QPSK (464 x 288 – 4CIF)
Ultra Narrow	1 MHz @ 16QAM (464 x 288 – CIF)
Output Power	Ranger1 – 100 mW / 200 mW Ranger2 – 1 W Mini Ranger – up to 100 mW
Modulation Type	1 QPSK or 16 QAM or 64 QAM
FEC	½ or 7/8
COFDM Carriers	2K Carriers
COFDM Standard	DVB-T Proprietary
Weight	Ranger1 – 390 g Ranger2 – 1,550 g Mini Ranger – 200 g
Power Supply	Ranger1 & Mini Ranger – 500 mA @ 12 vDC Ranger2 – 1.5A @ 12vDC
Antenna Connection	SMA

Receiver

Sensitivity	-105 dBm
Chrominance Profile	4:2:0
Line Standard	525 and 625
Video Bit Rates	1Mb/sec to 20 Mb/sec
Latency	< 100 mS
Video Output	PAL or NTSC
AES Encryption	Compliant with ACPO AES 128 / 256
Input Frequency	
UHF	300 MHz – 400 MHz
L Band	1.15 GHz - 1.4 GHz
S Band	2.28 GHz - 2.485 GHz
C Band	5.725 GHz - 5.850 GHz
Custom frequency bands are available on request.	
Dimensions	W 272 x D 60 x H 114 mm
Weight	1.6 kg
Power Supply	600 mA @ 12 vDC
Antenna Connection	N Type (2 off Diversity)
Power Connection	LEMO 2 Pin
Video Connection	BNC
Audio Connection (Optional)	Stereo outputs
Video Store	Digital view and record system (optional Pelicase receiver)
Antenna Options	Standard Omni Antenna High Gain Omni Antenna High Gain Directional Grids Yagi Antennas Mounting Kits Mobile Antenna Sets
Display	Built-in LCD screen (optional) Strength Meter and Signal Lock LED