XR Series Frequency Agile Receivers

The most important thing we build is trust.

The XR Series of receivers from GMS are advanced technology microwave receivers capable of operation at 1.7 – 6.0 GHz. The XR Series demodulates one video and two audio signals from a composite analog RF source. The XR Series is fully synthesized and operates at 16 pre-programmed channels. The channel select is controlled by a microprocessor and a BDC rotary switch sets the desired channel. The XR includes LED display for representation of power and signal strength to facilitate path alignment,

The XR Series features a Preselect Band Pass Filter and integral Low Noise Amplifier at the RF input with a nominal noise figure of 5 dB. The XR employs dual SAW filters at the IF stage for enhanced adjacent channel interference rejection. Two buffered video output signals and two balanced audio outputs are provided at a DB15 connector. NTSC and PAL standards are available. Small size, low power consumption and 1ˆ2C control make the XR Series ideal for use in remote applications.

Specifications subject to change without prior notice
Typical values shown unless min or max is specified
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Specifications:

RF

Frequency Range	1.7 – 6.0 GHz
Frequency Stability	+/- 0.005%
Noise Figure	5 dB L/S: 7 dB C typical
Dynamic Range	75 dB
Sensitivity	-83 dBm: S/N weighted of 43 dB
Input Impedance	50 Ω

Power

Voltage	11 to 15 VDC
Current	400mA typical

Video

Output Impedance	75 Ω
Output Level	1 volt (peal to peak)
De-emphasis	Per CCIR 525/625 line
Frequency Response	10Hz – 5 MHz NTSC: 5.5 MHz Pal

Meets or exceeds EIA/TIA 250-C end to end performance specifications

Environment

Humidity	0 to 100% non-condensing
Temperature	-20º to +70ºC

Audio

Subcarriers	4.83, 5.8, 6.0, 6.2, 6.5, 6.8
(any two)	7.02, 7.5, 8.3, 8.5, 8.59 MHz
Output Impedance	600 Ω balanced
Output Level	+9 dBm

Meets or exceeds EIA/TIA 250-C end to end performance specifications

Mechanical

Size	3.25” x 4.25” x 0.75” (10.4 cu in)
Weight	8 oz/227 grams
RF input Connector	J2, SMA
A/V/Power Connector	J1, DB-15

Pinout:

1: +11 to 15 VDC	9: Video out 1
2: Audio 2 Low	10: Video out 2
3: Audio 2 High	11. Digital clock (1ˆ2C)
4: Audio 1 Low	12. Video out 3
5: Audio 1 High	13. Digital I/O (1ˆ2C)
6: Analog GND	14. Video GND
7: Signal Strength	15. Comp Video out
8 :Audio GND	

1916 Palomar Oaks Way, Suite 100 Carlsbad, CA 92008
Tel. (760) 496-0055 gms-sales@cobham.com
Fax. (760) 496-0057 GMS PRODUCTS