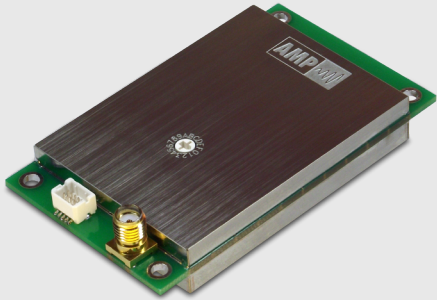


# PSR1 Video/Audio/Data Receiver

**A Very Lightweight and Compact  
PCB Video Receiver!**



## Design Features

- 2.3 Cubic Inch (1.75"x3.00"x0.44")
- Weighs < 1.5 Oz.
- Low Current Draw (Extended Battery Life)
- Low Noise Figure (More Range)
- Full Frequency Band Channelized
- 2 Frequency Selection Modes
- Supports Composite Video (NTSC or PAL)
- Optional Audio or Data Subcarrier
- Received Signal Strength Indication (Remote Query)
- J-STD-001D Class 3 Assembly (Medical/Aerospace)

## PSR1 Series

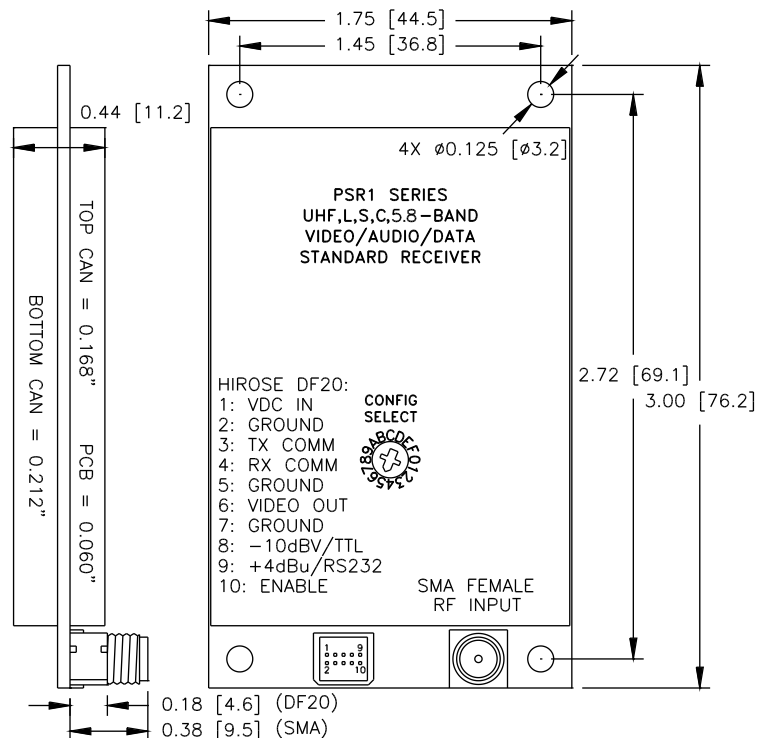
AMP's PSR1 Series 2.3 cubic inch video receivers offer high quality reception with many advanced features, including the miniature packaging, extremely light weight, low power consumption, and low noise figure.

PSR1 receivers feature innovative circuit designs to reduce power consumption for significantly longer battery life and to reduce noise figure for substantially more range. Lower noise figure improves video quality and reduces the required transmitter output power thereby reducing transmitter battery requirements.

Receiver carrier frequency may be selected remotely and locally/remotely with a programmable binary switch. Received signal strength may be queried via remote query at any time.

If your application requires video and audio or data reception, PSR1 receivers are optionally configured with an audio or data subcarrier.

PSR1 receivers are ideal for law enforcement, surveillance, UAV, UGV, Military, and other applications requiring high quality video reception in a compact, rugged package.



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## RF Characteristics

Frequency Range (Specify):	UHF:	340.0-399.9 MHz	100 kHz Channels
(Other Ranges Available)	Lower L-Band:	1435-1535 MHz	1 MHz Channels
	Upper L-Band:	1700-1850 MHz	1 MHz Channels
	Lower S-Band:	2200-2399 MHz	1 MHz Channels
	Upper S-Band:	2400-2499 MHz	1 MHz Channels
	Full S-Band:	2200-2499 MHz	1 MHz Channels
	Lower C-Band:	4400-4900 MHz	1 MHz Channels
	Upper C-Band:	4900-4999 MHz	1 MHz Channels
	Full C-Band:	4400-4999 MHz	1 MHz Channels
	ISM 5.8 GHz Band:	5725-5875 MHz	1 MHz Channels
Frequency Selection (Specify):	Full Band Channelized - Remote Control Only or Remote/Programmable Switch		
Maximum RF Input:	+10 dBm Without Damage		
Input Impedance:	50 $\Omega$ Nominal, VSWR 2:1 Maximum		
Noise Figure:	< 3 dB		
Image Rejection:	> 60 dB		
Signal Strength Output:	Remote Query		

## LO/IF Characteristics

LO Stability:	$\pm 5$ ppm Over -20°C to +60°C
IF Frequency:	UHF: 153.6 MHz, L/S: 374 MHz, C/5.8: 480 MHz
IF Bandwidth:	17 MHz Nominal
Harmonic and Spurious Level:	-25 dB Maximum

## Video Characteristics

Modulation Type:	Analog FM, Positive Sense
Video Standard (Specify):	NTSC (10Hz to 4.2MHz, 525 Line D/E) or PAL (10Hz to 5.0MHz, 625 Line D/E), +/- 1.5dB
Output Level:	1 Vpk-pk/ $\pm 4$ MHz @ Crossover Frequency into 75 $\Omega$ Load
Output Impedance:	75 $\Omega$ Nominal, Unbalanced

## Audio/Data Subcarrier Characteristics

Subcarriers (Specify):	None or One, Audio or Data
Subcarrier Frequency (Specify):	5.8, 6.0, 6.2, 6.5, 6.8, 7.2, 7.5, 8.3, or 8.59 MHz, or Custom
Frequency Stability:	$\pm 0.5\%$ Over -20°C to +60°C
Subcarrier On/Off Control:	Remote and Programmable Switch Control
Modulation Type:	Analog FM, Positive Sense
Frequency Response:	100 Hz to 10 kHz $\pm 1.5$ dB (Audio) or DC to 50 kbps (Data)
De-Emphasis:	75 $\mu$ sec NTSC or 50 $\mu$ sec PAL (Audio) or None (Data)
Output Level:	-10 dBV and +4 dBu Line / 150 kHz pk-pk @ 1 kHz Rate into 10 k $\Omega$ Load (Audio) or RS232 and TTL / 150 kHz pk-pk Deviation (Data)
Output Impedance:	100 $\Omega$ Nominal, Unbalanced (Audio) or 300 $\Omega$ (Data)

## Configuration Interface Characteristics

Interface Type:	Two-Way UART
Signalling Type (Specify):	RS232 or 3.3V TTL
Interface Parameters:	9600/8/1/None/None (Baud/Data Bits/Stop Bits/Parity/Handshake)

## Power Requirements

Input Voltage:	+9 to +16 Vdc, Reverse Polarity Protected
Current Draw (Typical at 12V):	200 mA

## Mechanical

Dimensions:	1.75" W x 3.00" L x 0.44" H
Weight:	<1.5 oz.
Connectors:	RF Input: SMA Female DC Supply, Video Output, Audio/Data Out, Comms: Hirose DF20F-10DP-1V Male, Mate Supplied

## Environmental

Temperature (Operating):	-20°C to +60°C
Acceleration:	100 g, 3 Axis
Altitude:	Unlimited
Humidity:	Up to 95% @ Any Temperature Forming Frost or Condensation