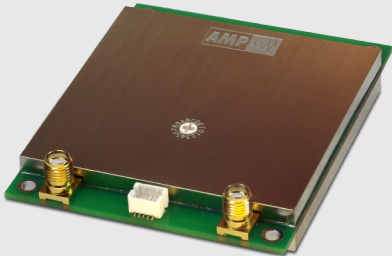


PDR1 Diversity Video/Audio/Data Receiver

A Great Lightweight PCB Diversity Receiver For UAVs and UGVs!



Design Features

- 3.3 Cubic Inch (2.50"x3.00"x0.44")
- Weighs < 2 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)

PDR1 Series

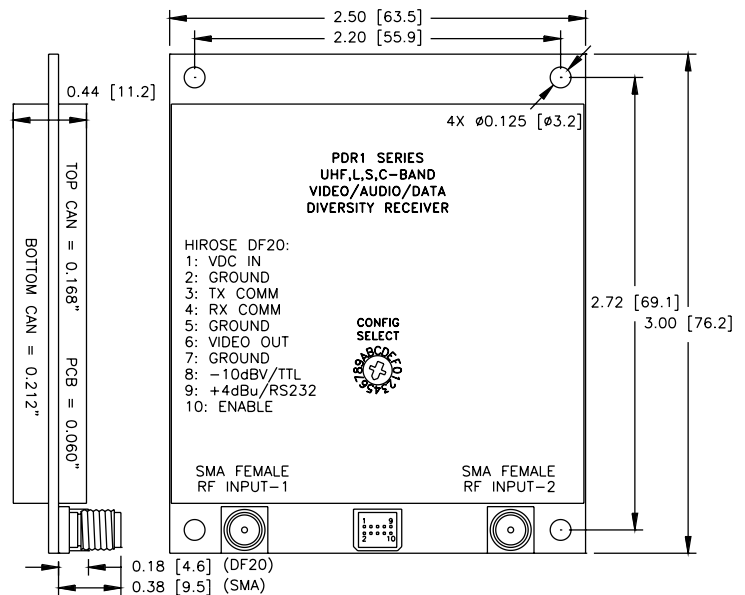
AMP's PDR1 Series 3.3 cubic inch diversity video receivers offer high quality diversity reception with many advanced features including miniature packaging, extremely light weight, low power consumption, and low noise figure.

PDR1 receivers feature a proprietary voting circuit that ensures reception of the strongest signal at all times. Innovative circuit designs are utilized to reduce power consumption for significantly longer battery life and to reduce noise figure for substantially more range and better video quality.

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, PDR1 receivers are optionally configured with an audio or data subcarrier.

PDR1 receivers are ideal for UAV, UGV, Military, and other applications requiring high quality diversity video reception in a compact, rugged package.



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PDR1 Diversity Video/Audio/Data Receiver

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
Frequency Selection (Specify):	Full Band Channelized - Remote Control Only or Remote/Programmable Switch		
Maximum RF Input:	+10 dBm Without Damage		
Input Impedance:	50 Ω Nominal, VSWR 2:1 Maximum		
Noise Figure:	< 3 dB		
Image Rejection:	> 60 dB		
Signal Strength Output:	Remote Query		
Voting Characteristics	RSSI Based, >150 kHz Voting Rate		

LO/IF Characteristics

LO Stability:	± 5 ppm Over -20°C to +60°C		
IF Frequency:	UHF: 153.6 MHz, L/S: 374 MHz, C: 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/ ± 4 MHz @ Crossover Frequency into 75 Ω Load		
Output Impedance:	75 Ω 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 ± 1.5 dB (Audio) or DC to 50 kbps (Data)		
De-Emphasis:	75 μ sec NTSC or 50 μ sec PAL (Audio) or None (Data)		
Output Level:	-10 dBV and +4 dBu Line / 150 kHz pk-pk @ 1 kHz Rate into 10 k Ω Load (Audio) or RS232 and TTL / 150 kHz pk-pk Deviation (Data)		
Output Impedance:	100 Ω Nominal, Unbalanced (Audio) or 300 Ω (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):	230 mA		

Mechanical

Dimensions:	2.50" W x 3.00" L x 0.44" H		
Weight:	<2 oz.		
Connectors:	RF Inputs:	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 Axes		
Altitude:	Unlimited		
Humidity:	Up to 95% @ Any Temperature Forming Frost or Condensation		