

PCM Receiver Brick UDB-RECx-n

Features

- **Portable Telemetry Receiver**
- **Single or Dual S/L Band, Other Bands Available**
- **Handles Extreme Rugged Environments**
- **Up to 4 IF and Post-detect Bandwidths**
- **Includes Omni-directional Antenna**
- **Operation to 20 Mbps**
- **Ideal Flight-line, Mobile, or On-board Device**
- **Line or Battery Powered**
- **Enables Mini Ground Station Capability**



Introduction

Wyle Telemetry and Data Systems' high performance single (or dual) band telemetry receiver is designed for portable ground-based, shipboard, and airborne operations. Combined with the PCM Data Brick and the powerful OMEGA Real-time Telemetry Processing software, the PCM Receiver Brick offers instrumentation and telemetry engineers an ideal solution for portable real-time telemetry data applications.

Ease of Operation

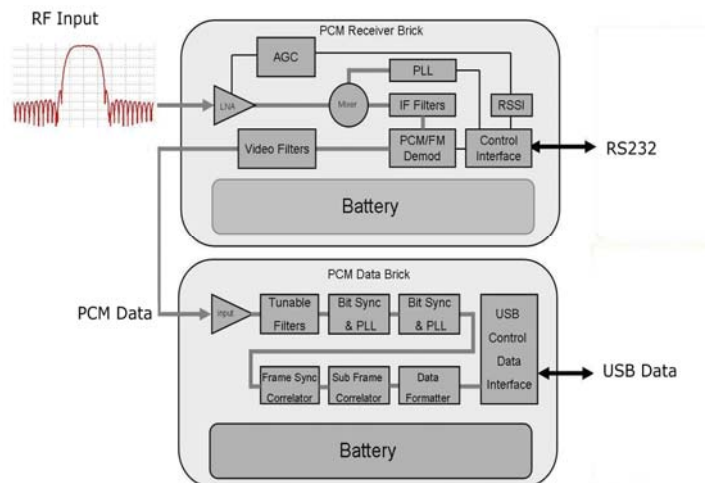
The PCM Receiver Brick and the PCM Data Brick combination represents a breakthrough in portable PCM processing functionality. By connecting the compact PCM Receiver Brick to any commercial PC or laptop using the basic RS232 com port and then connecting the PCM Data Brick to a high-speed USB V2.0 I/O port, users have at their command an integrated PCM processing front-end solution capable of operating at up to 20 Mbps. Included with the PCM Receiver Brick is a Windows graphical user interface (GUI) that provides all Receiver controls and a received signal strength indicator.

Performance

The PCM Receiver Brick's low noise figure and the PCM Data Brick's high performance variable rate PCM bit synchronization combine to provide an affordable, compact, and rugged package that can match or even exceed some lab-based ground stations. The PCM Receiver Brick excels in harsh noise environments and provides support for extreme signal-to-noise performance when attached to high gain antenna systems.

Flexibility

Occupying only a small 3.5-inch by 9-inch footprint, the PCM Receiver Brick can be coupled with any TDS instrumentation set-up, flight-line check out, quick-look processing, and ground station processing software products to provide a best-value solution for telemetry system engineers and integrators. Our company's patented bit synchronizer phase-lock loop and tracking features equal the performance levels of modern ground station solutions at a fraction of the cost.



Receiver Input	Bands	S-band, 2200 to 2399 MHz, standard (NATO E-band and L-band also available). <i>Others are available.</i> *	
	Tuning Resolution	500 kHz	
	Frequency Stability	+/-20 ppm, +/- 2.5 also available	
	Input impedance	50 ohms	
	VSWR	2:1, maximum	
	Noise Figure	5 dB	
	Sensitivity	Less than -80 dBm, typical	
	Operating Levels	Greater than -10 dBm to threshold	
	Maximum Input	+10 dBm, without damage	
	Dynamic Range	80 dB, minimum	
	IF Bandwidths	1, 2, 3, or 4 bandwidths available	
	Data Output	Signal	PCM/FM standard. SOQPSK Optional
		Amplitude	Adjustable up to 5 Vp-p into 75 ohms
Post-Detect Filters		1, 2, 3, or 4 bandwidths, matched to IF filter available*	
Rate		100 Kbps to 20 Mbps	
Control	AGC Time Constant	1 mS to 1 S, specified at time of order	
	Interface	RS232	
DC Power	Battery	Rechargeable COTS battery, external charger provided with battery-powered configuration; 2-hour operating life typical	
	DC	Accepts 10 VDC to 35 VDC input	
	AC	Accepts 110 VAC, supported with external AC/DC unit	
	Current	0.55A, maximum	
Connector Types	RF Input	SMA female	
	Data Output	BNC female	
	Control	9-pin, D-type male	
Physical	Module Size	3.5-inch (w) x 9-inch (l) x 2.9-inch (h)	
	Module Weight	3.5 lbs	
Environment	Operating Temperature	-20 °C to +70 °C	
	Vibration	20g, 3 axes	
	Shock	100g, 11 milliseconds, 3 axes	
	Acceleration	100g, 3 axes	
	Humidity	Up to 95%, noncondensing	
Accessories	Altitude	Unlimited	
		Windows GUI	
*Please contact our Marketing and Sales department for additional information.			
Ordering Codes	UDB-REC1-x01	Portable PCM Data Brick Receiver, UL Band (w/Batt,AC Charger, 1 IF Filter)	
	UDB-REC2-101	Dual Band Port PCM Data Brick Receiver, LL&UL Bands (w/Batt,AC Chgr, 1 IF Filter)	
	UDB-REC3-x01	Dual Band Port PCM Data Brick Receiver, LL&S Bands (w/Batt,AC Chgr, 1 IF Filter)	
	UDB-REC4-x01	Dual Band Port PCM Data Brick Receiver, UL&S Bands (w/Batt,AC Chrgr, 1 IF Filter)	
	UDB-RECL-x01	Portable PCM Data Brick Receiver, LL Band (w/Batt,AC Charger, 1 IF Filter)	
	UDB-RECS-x01	Portable PCM Data Brick Receiver S Band (w/Batt, AC Charger, 1 IF Filter)	
	UDB-yyyk-FIL1	IF Filter Bandwidth Selection yyy= Bandwidth, k = exponent; Example: UDB-5003-FIL1 = 500 kHz Specify Filter Bandwidth from below 0.5, 1.0, 1.5, 2.5, 3.5, 4.0, 6.0, 8.0, 10.0, 12.0, 16.0, 20.0 MHz Other IF Filter Bandwidths available on request	

All specifications subject to change without notice.