

Standard Telemetry Products

Emhiser Research, Inc. designs and manufactures a complete line of airborne and ground-based telemetry equipment designed specifically for harsh military applications. Our tested and proven products are qualified on numerous high profile defense programs.

This catalog contains technical bulletins of many of our more common products. If these products do not meet your exact specifications, give us a call to discuss your requirements.

- Wideband DC Coupled Transmitters and Receivers
- Digital Transmitters and Receivers
- Video Transmitters and Receivers
- Telemetry Transmitters and Receivers
- FSK Transmitters and Receivers



EMHISER RESEARCH, INC.

2705 Old Highway 40 West
P.O. Box 189
Verdi, Nevada 89439-0189

Phone: (775) 345-2705

Fax: (775) 345-2484

E-mail: info@emhiser.com

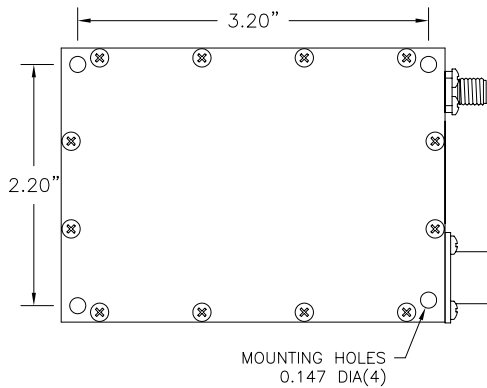
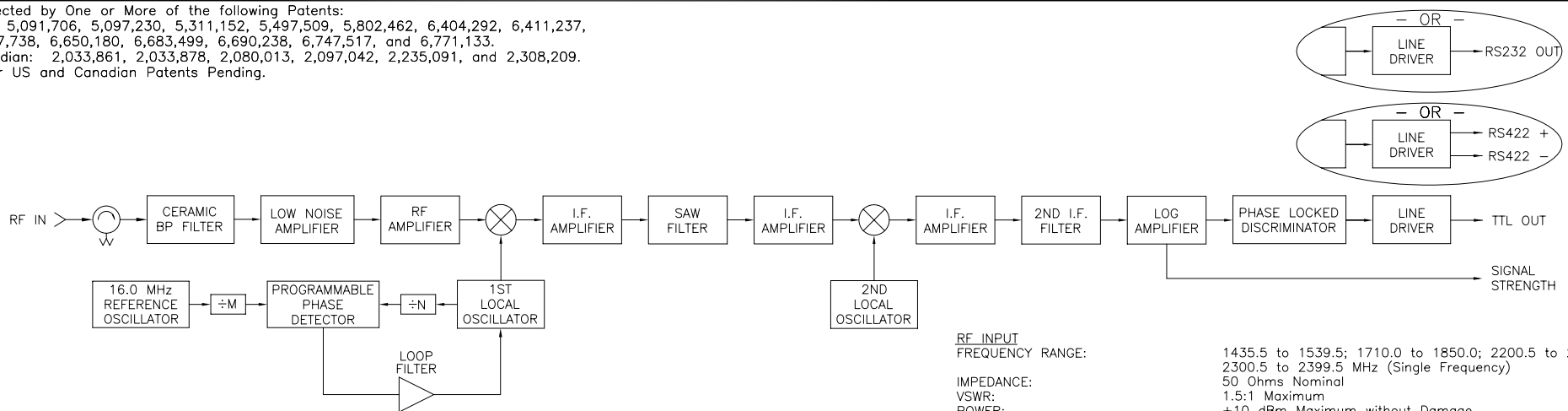
Web: www.emhiser.com

FSK Receiver Model EFR-11DED Series

11 Cubic Inches Signal Strength

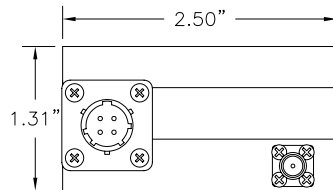
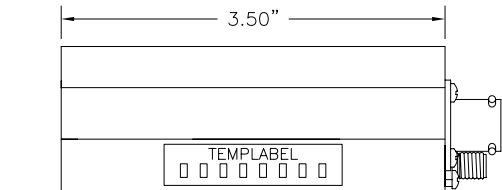
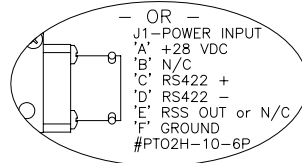
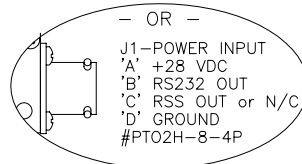
DC Coupled Single Frequency 28 VDC

Protected by One or More of the following Patents:
 US: 5,091,706, 5,097,230, 5,311,152, 5,497,509, 5,802,462, 6,404,292, 6,411,237,
 6,417,738, 6,650,180, 6,683,499, 6,690,238, 6,747,517, and 6,771,133.
 Canadian: 2,033,861, 2,033,878, 2,080,013, 2,097,042, 2,235,091, and 2,308,209.
 Other US and Canadian Patents Pending.



J2-RF IN
SMA FEMALE

J1-POWER INPUT
'A' +28 VDC
'B' TTL OUT
'C' RSS OUT or N/C
'D' GROUND
#PT02H-8-4P



RF INPUT
 FREQUENCY RANGE: 1435.5 to 1539.5; 1710.0 to 1850.0; 2200.5 to 2299.5; 2300.5 to 2399.5 MHz (Single Frequency)
 IMPEDANCE: 50 Ohms Nominal
 VSWR: 1.5:1 Maximum
 POWER: +10 dBm Maximum without Damage
 NOISE FIGURE: 4 dB Maximum
 SIGNAL STRENGTH OUTPUT: +0.3 VDC Nominal at Threshold Sensitivity, +5 VDC Nominal at Threshold Sensitivity + 50 dB



L.O./I.F.
 STABILITY: Within ±0.002% over -20°C to +70°C
 1st I.F.: 440 MHz
 2nd I.F.: 10.7 MHz
 PRE-DETECT BANDWIDTH: Specify
 HARMONIC AND SPURIOUS LEVEL: -50 dB Maximum
 DEVIATION: Factory Set to ±75 KHz

DEMODULATED OUTPUTS
 BIT RATE: DC to 57.6 KBits/Sec Maximum (Specify)
 OUTPUT LEVELS: TTL, RS232, OR RS422 Compatible

POWER REQUIREMENTS
 INPUT VOLTAGE: 28 ±4 VDC, Reverse Polarity Protected
 INPUT CURRENT: 550 mA Maximum

ENVIRONMENTAL SPECIFICATIONS
 TEMPERATURE: Operating: -20°C to +70°C; Storage: -54°C to +125°C
 VIBRATION: 14 G's, Random, Standard Haystack, 20 Hz to 2 KHz, 3 Axes
 SHOCK: 1/2 Sine, 100 G's Pk, 11 ms, 3 Axes
 ACCELERATION: 100 G's, 3 Axes
 ALTITUDE: Unlimited
 HUMIDITY: To 95% at any Temperature forming Frost or Condensation

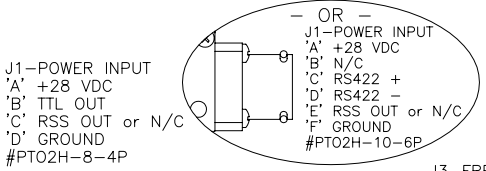
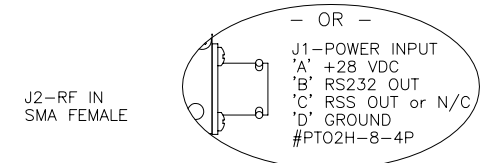
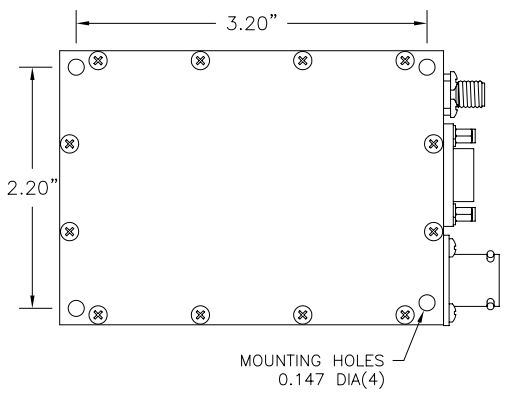
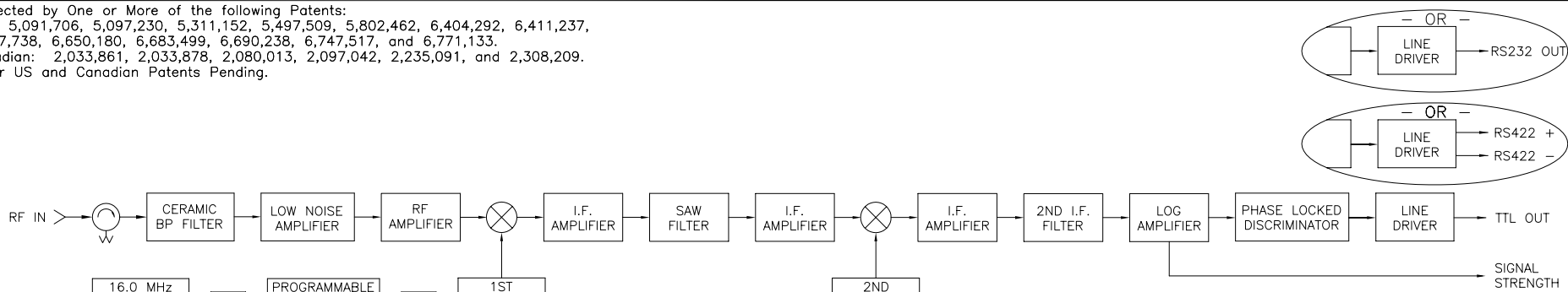
PHYSICAL CHARACTERISTICS
 DIMENSIONS: Per Outline Drawing
 WEIGHT: 10 oz. Maximum

DATE	05 07 11	 EMHISER RESEARCH, INC. 2705 OLD HIGHWAY 40 WEST TEL: 775-345-2705 P.O. BOX 189 VERDI, NEVADA FAX: 775-345-2484 89439-0189 U.S.A. EMAIL: INFO@EMHISER.COM
DWN	L3	
APVD		FSK RECEIVER/RSS
QC		SINGLE FREQUENCY, DC COUPLED 1435.5 TO 2399.5 MHZ (4 BANDS)
CAGE CODE IDENT NO.	60666	MODEL NO. EFR-11DED SERIES 

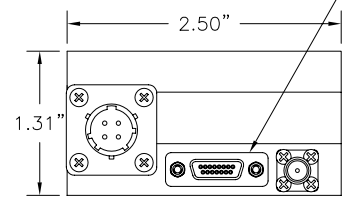
FSK Receiver Model EFRC-11DED Series

11 Cubic Inches Signal Strength DC Coupled Channelized 28 VDC

Protected by One or More of the following Patents:
 US: 5,091,706, 5,097,230, 5,311,152, 5,497,509, 5,802,462, 6,404,292, 6,411,237,
 6,417,738, 6,650,180, 6,683,499, 6,690,238, 6,747,517, and 6,771,133.
 Canadian: 2,033,861, 2,033,878, 2,080,013, 2,097,042, 2,235,091, and 2,308,209.
 Other US and Canadian Patents Pending.



- J3 - FREQUENCY SELECT
MDM-15P
PIN#
- 1: GND
 - 2: GND
 - 3: N/C
 - 4: BCD 100
 - 5: BCD 80
 - 6: BCD 40
 - 7: BCD 20
 - 8: BCD 10
 - 9: BCD 8
 - 10: BCD 4
 - 11: BCD 2
 - 12: BCD 1
 - 13: BCD 0.5
 - 14: GND
 - 15: GND



RF INPUT
 FREQUENCY RANGE: 1435.5 to 1539.5; 1710.0 to 1850.0; 2200.5 to 2299.5;
 2300.5 to 2399.5 MHz Channelized in 0.5 MHz Steps
 FREQUENCY SELECTION: Via MDM-15P Connector
 IMPEDANCE: 50 Ohms Nominal
 VSWR: 1.5:1 Maximum
 POWER: +10 dBm Maximum without Damage
 NOISE FIGURE: 4 dB Maximum
 SIGNAL STRENGTH OUTPUT: +0.3 VDC Nominal at Threshold Sensitivity,
 +5 VDC Nominal at Threshold Sensitivity + 50 dB


L.O./I.F.
 STABILITY: Within ±0.002% over -20°C to +70°C
 1st I.F.: 440 MHz
 2nd I.F.: 10.7 MHz
 PRE-DETECT BANDWIDTH: Specify
 HARMONIC AND SPURIOUS LEVEL: -50 dB Maximum
 DEVIATION: Factory Set to ±75 KHz

DEMODULATED OUTPUTS
 BIT RATE: DC to 57.6 KBits/Sec Maximum (Specify)
 OUTPUT LEVELS: TTL, RS232, or RS422 Compatible

POWER REQUIREMENTS
 INPUT VOLTAGE: 28 ±4 VDC, Reverse Polarity Protected
 INPUT CURRENT: 550 mA Maximum

ENVIRONMENTAL SPECIFICATIONS
 TEMPERATURE: Operating: -20°C to +70°C; Storage: -54°C to +125°C
 VIBRATION: 14 G's, Random, Standard Haystack, 20 Hz to 2 KHz, 3 Axes
 SHOCK: 1/2 Sine, 100 G's Pk, 11 ms, 3 Axes
 ACCELERATION: 100 G's, 3 Axes
 ALTITUDE: Unlimited
 HUMIDITY: To 95% at any Temperature forming Frost or Condensation

PHYSICAL CHARACTERISTICS
 DIMENSIONS: Per Outline Drawing
 WEIGHT: 10 oz. Maximum

DATE	05 07 11	 EMHISER RESEARCH, INC. 2705 OLD HIGHWAY 40 WEST TEL: 775-345-2705 P.O. BOX 189 VERDI, NEVADA FAX: 775-345-2484 89439-0189 U.S.A. EMAIL: INFO@EMHISER.COM
DWN	L3	
APVD		FSK RECEIVER/RSS CHANNELIZED, DC COUPLED 1435.5 TO 2399.5 MHZ (4 BANDS)
QC		
CAGE CODE IDENT NO.	60666	MODEL NO. EFRC-11DED SERIES 