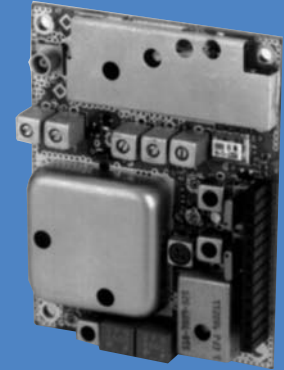


SYNTHESIZED DM-3464 HIGH SPEC TRANSCIVER OEM DATA MODULE

VHF 132-174 MHz



The DM-3464 series data module provides a VHF companion to the popular UHF modules, DM-3474 and DM-3472. The compatible footprint and 14-pin interface allows OEMs to provide both UHF and now VHF wireless solutions.

The synthesized DM-3464 combines innovative technological features and tough electrical specifications designed to comply with FCC, Industry Canada, and various international specifications.

Designed for data. The DM-3464 features a fast attack synthesizer with lock time of less than 7 msec, reduced key up/key down sideband noise, and a low group delay receiver.

VHF frequency coverage. The new FCC reforming rules will provide new opportunities for transmitting data at VHF. The DM-3464 addresses the new frequency assignments by offering channel steps of 5, 6.25, and 7.5 kHz at 132-150 MHz; and a channel step of 2.5 kHz at 150-174 MHz.

High reliability for worry-free operation: conservative design, tight frequency stability, and quality components ensure top performance.

Compact design makes integration easy. Module is 2.8" x 2.2" x 0.6" (7.19cm x 5.56cm x 1.63cm) and weighs only 2.3 oz. (65g).

Rugged design with two-year warranty. Manufactured in the U.S.A.

GENERAL

Channel Bandwidth	12.5 kHz	25 kHz
Frequency Range	132-174 MHz	
Frequency Control	Synthesized	
Mode of Operation	Simplex or half duplex	
Supply Voltage	7.5 VDC nominal	
Regulated Supply Voltage	5 VDC ± 5%	
RF Input/Output	MCX female	
Power and Data Interface	14 pin in-line socket, 100 mil center	
Operating Temperature	-30°C to +60°C	
Maximum Dimensions (LxWxH)	2.83" x 2.19" x 0.64" (7.19cm x 5.56cm x 1.63 cm)	
Weight	2.3 oz. (65 g)	

TRANSMITTER

Bandwidth Without Tuning	18, 24 MHz (note 1)	
Frequency Stability	2.5 ppm	
Modulation Bias	2.5 VDC ± 1%	
RF Power Out	2 watt nominal @ 7.5 VDC	
RF Output Impedance	50 Ω	
Modulation Distortion	Less than 3%	
Duty Cycle	50%, 60 sec maximum transmit	
Transmitter Attack Time	Less than 7 msec (note 2)	
Spurious and Harmonic FM	-37 dBm	
FM Hum and Noise	-40 dB @ 12.5 kHz	-45 dB @ 25 kHz
Modulation Input Impedance	> 40 kΩ	
Supply Current	< 1300 mA	
Modulation Response (DC to 5 kHz, ref. to 1 kHz)	+1/-3 dB	
Modulation Sensitivity	170 mVrms 1 kHz tone produces 3 kHz deviation	

RECEIVER

Bandwidth Without Tuning	6 MHz (note 3)	
Frequency Stability	2.5 ppm	
12 dB SINAD Sensitivity (Note 4)	< 0.35 μV	
RF Input Impedance	50 Ω	
Selectivity	60 dB @ 12.5 kHz	70 dB @ 25 kHz
Spurious and Image Rejection	70 dB	
Intermodulation Rejection	70 dB	
FM Hum and Noise	-40 dB @ 12.5 kHz	-45 @ 25 kHz
Conducted Spurious	-57 dBm	
Supply Current	60 mA nominal	
Attack Time	7 msec (note 2)	
Audio Distortion	<3%	
Audio Output	0.15 Vrms	
Audio Bias	2.5 VDC	
Audio Response (reference to 1 kHz)	+1/-3 dB DC -2.5 kHz	+1/-3 dB DC -5 kHz
Minimum Load Impedance	600 Ω	
RSSI Range	60 dB	

Note 1: 132–150 MHz or 150–174 MHz.

Note 2: Dependent on synthesizer loading implementation.

Note 3: Manually tuneable across sub-band.

Note 4: Measured using a wideband data port on radio with psophometric filtering.

INTERFACE INFORMATION

Antenna Connector: MCX female
Data Connector: 14-pin Dupont 76308-114

Pin	Description
1	Ground
2	7.5 VDC ± 10%, 900 mA
3	Transmit, 7.5 VDC ± 5%, 250 mA
4	Receive Control, 5.0 VDC ± 5%, 200μA
5	5 V Shutdown ± 5%, 100μA
6	Data In, @ 2.5 VDC ± 1% bias
7	Synthesizer Lock
8	Synthesizer Enable
9	Synthesizer Data
10	Synthesizer Clock
11	No Connect
12	RSSI
13	Data Out
14	Modulation Flatness Adjust

MECHANICAL LAYOUT

