Dynamic Engineers Inc.

2550 Gray Falls Dr., Suite#128, Houston, TX, 77077
TEL: 281-870-8822 EMAIL: Sales@DynamicEngineers.com

BFM3364
Bank Filter Module

Description

The BFM3364 is a Bank Filter module operating in a Frequency Range of 30 to 512 MHz which can be used both in Transmitting and Receiving mode. In Transmitting mode, it works as a 6 channel Harmonic Filter where each band is selected automatically with a PIN Diode switch. In Receiving mode the module operates as a Gain Block providing High Linearity and Low Noise operation.

Features and Benefits

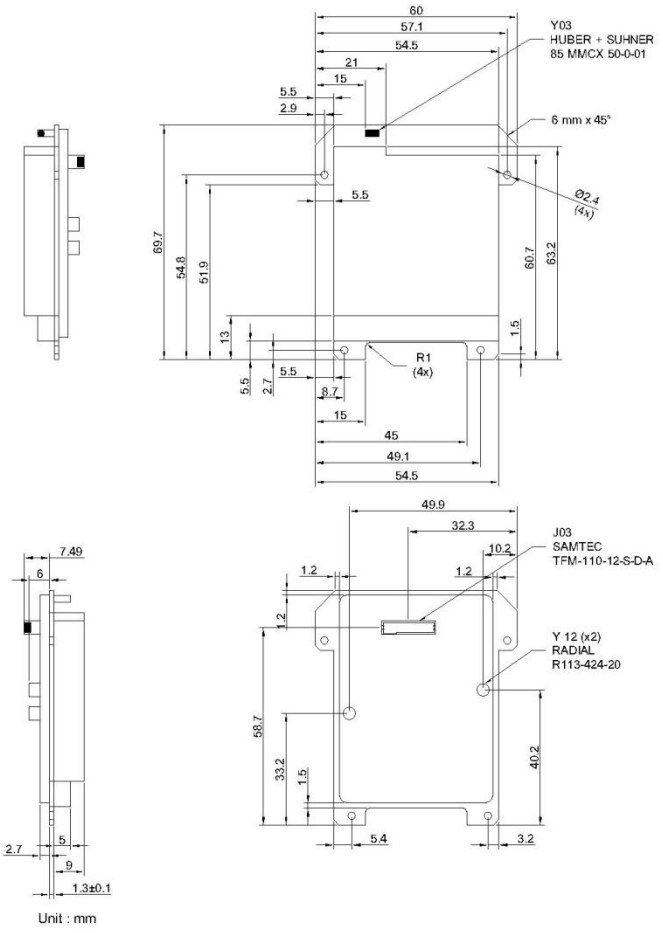
30-512 MHz operating range
6 RF channels of Communication via PIN diode switching
Dual Transmit and Receive Functionality
10 Watt max. Power Handling
Less than 50 usec switching time between channels
Number of channels and bandwidth of each can be negotiated based on radio architecture needed

Typical Applications

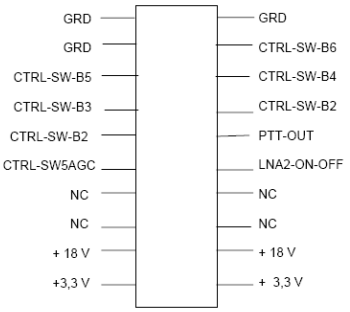
Ideal for use in High Reliability Ground and Aircraft Mobile Radio Systems

Mechanical Drawing & Pin Connections

Drawing No: MD150010-1



PTT-OUT	V_{HIGH}	RX MODE
	V_{LOW}	TX MODE
CTRL-SW-B1	V_{HIGH}	CH1 ON
	V_{LOW}	CH1 OFF
CTRL-SW-B2	V_{HIGH}	CH2 ON
	V_{LOW}	CH2 OFF
CTRL-SW-B3	V_{HIGH}	CH3 ON
	V_{LOW}	CH3 OFF
CTRL-SW-B4	V_{HIGH}	CH4 ON
	V_{LOW}	CH4 OFF
CTRL-SW-B5	V_{HIGH}	CH5 ON
	V_{LOW}	CH5 OFF
CTRL-SW-B6	V_{HIGH}	CH6 ON
	V_{LOW}	CH6 OFF
CTRL-SW5AGC	V_{HIGH}	THRU LNA
	V_{LOW}	BYPASS LNA
LNA2-ON-OFF	V_{HIGH}	LNA ON
	V_{LOW}	LNA OFF
+ 18 V	+ 18 V Supply Voltage	
+ 3.3 V	+ 3,3 V Supply Voltage	



INTERFACE CONNECTORS

TX	MCX
RX	MCX
ANTENNA	MMCX
20 PIN	TFM-110-12-SDA

Electrical Specifications

Frequency Range	30 to 512 Mhz					
Frequency Bands	CH1 : 30 – 50 Mhz CH2 : 50 – 80 Mhz CH3 : 80 – 140 Mhz CH4 : 140 – 227 Mhz CH5 : 227 – 400 Mhz CH6 : 400 – 512 Mhz					
Zin = Zout	50 Ω					
Insertion Loss	2.3 db max 1.8 db typical					
VSWR	1.5 : 1					
Attenuation (reference is made to F_{min} of each selected channel)	CH1	CH2	CH3	CH4	CH5	CH6
2* F_{min}	> 24 db	>27 db	>26 db	>28 db	>24 db	>35 db
3* F_{min}	> 33 db	>45 db	>43 db	>46 db	>43 db	>51 db
4* F_{min}	> 40 db	>50 db	>45 db	>50 db	>41 db	>56 db
5* F_{min}	> 45 db	>50 db	>45 db	>50 db	>48 db	>45 db
RF Power Handling	8 W (10 W max)					
Switch time	50 µsec max					
Operating Temperature Range	- 30 ^{0} C to + 60 ^{0} C					
Supply Voltage V1 V2	 3.3 V (5 V max) 18 to 20 V (25 V max)					
DC Current I1 (Icc @ V1) I2 (Icc @ V2)	 280mA 10 mA					

Dynamic Engineers Inc.
2550 Gray Falls Dr., Suite#128, Houston, TX, 77077
TEL: 281-870-8822 EMAIL: Sales@DynamicEngineers.com

General Specification Reception Mode

Frequency Range	30 to 512 Mhz
Impedance	50 Ω
In Band Gain	19 db
VSWR	1.6 : 1 max
Noise Figure	30 Mhz 250 Mhz 500 Mhz 1.8 db 1.25 db 1.25 db
P_{1db}	30 Mhz 250 Mhz 500 Mhz 16.5 dbm 16.5 dbm 16.9 dbm
OIP3	30 Mhz 250 Mhz 500 Mhz 32.5 dbm 32.5 dbm 32.5 dbm
Power Handling	1 w max
Supply Voltage V1 V2	 3.3 V (5 V max) 18 to 20 V (25 V max)
Switch time	< 50 µ sec
Operating Temperature Range	- 30 ^{0} C to + 60 ^{0} C