
RF MICROTECH
ELECTRONICS

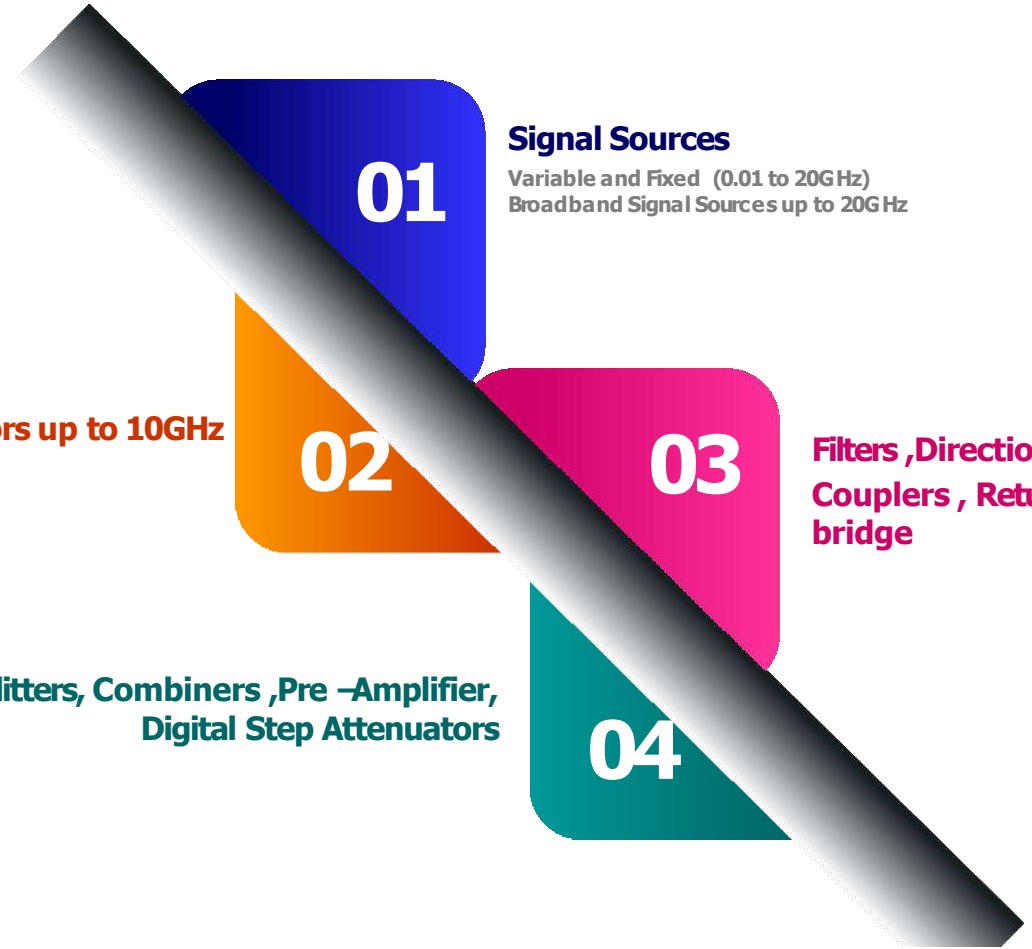
Company Overview

- RF Microtech Electronics (RFME) is a company based in Vadodara, Gujarat, India.
- We are into research, design and development of projects since 2017.
- We initiated with the venture “RF Microtech Electronics” where we are currently developing compact economical RF based measuring equipment.
- Our recent products include signal sources upto 20 GHz and Power Detectors capable of Detecting signals up to 10 GHz.

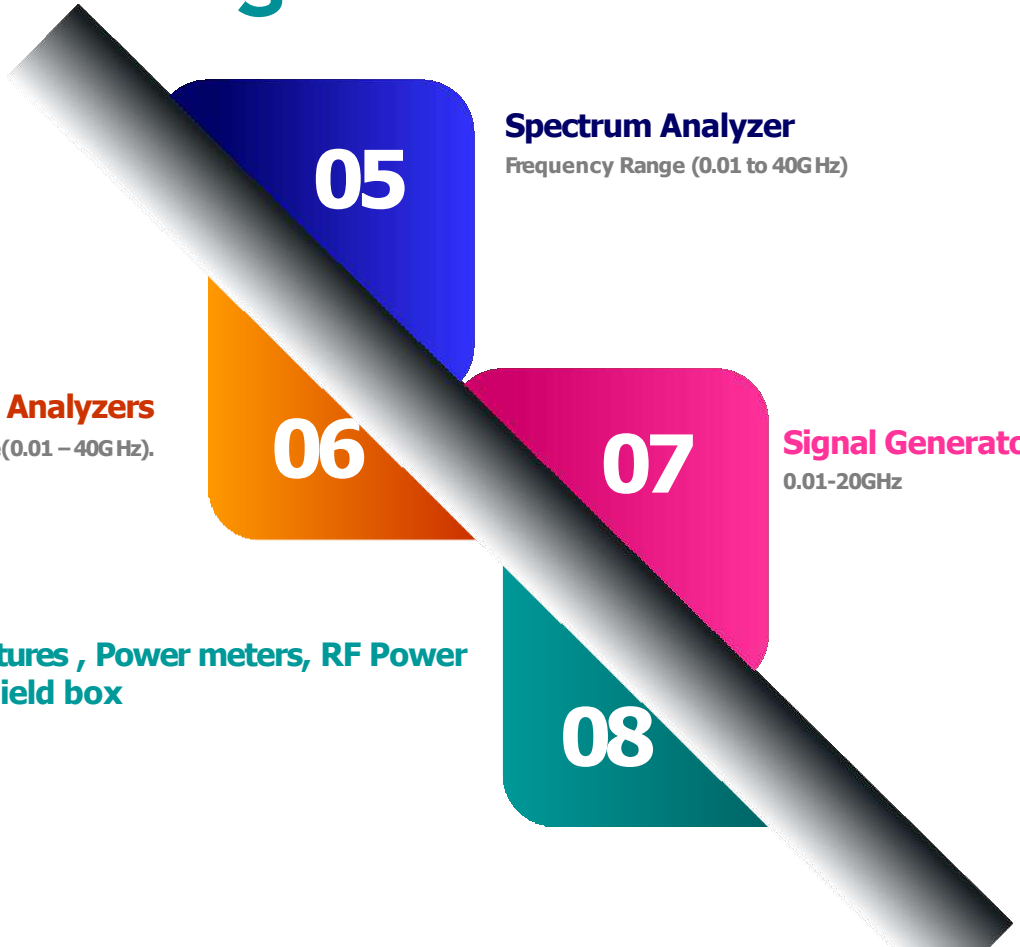
Why us?

- It has been observed that majority of the equipment used by engineers/technicians are bulky and expensive.
- This leads to inadequate testing.
- These equipment can be replaced by our portable Signal Sources and Power Detectors.
- Our Signal Sources cover a range from 0.01 to 20 GHz and power detectors from 1 MHz to 10 GHz.

Our Products



Range Of Products



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Spectrum Analyzer

Frequency Range (0.01 to 40GHz)

06

Network Analyzers

Frequency Range(0.01 – 40GHz).

07

Signal Generators

0.01-20GHz

08

Antenna test fixtures , Power meters, RF Power amplifiers , RF shield box

Signal Sources

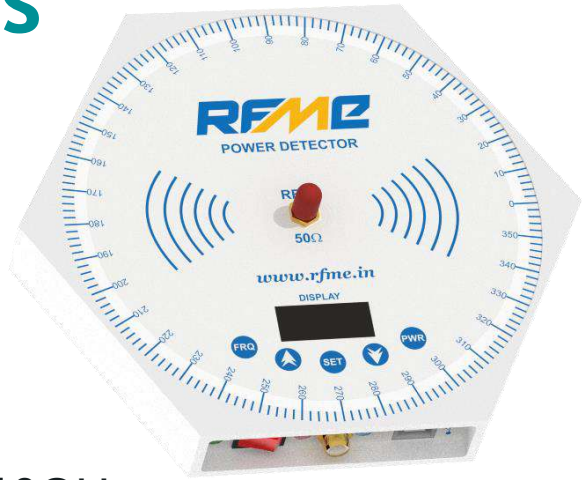
- Frequency Range: 51 MHz-9.02 GHz.
- Features: Long battery life, economical, small and rigid design
- Applications:
  - Scientific equipment manufacturer
  - EMC Test Laboratories
  - Microwave system manufacturer
  - Antenna manufacturer
  - Bluetooth devices manufacturer
  - WIFI and WIMAX manufacture

RFME Signal Source Models

Sr No.	Model No.	Start Frequency(MHz)	Stop Frequency(MHz)
1	RFTxV516-636	51	63
2	RFTxV107-127	100	129
3	RFTxV197-257	194	255
4	RFTxV337-447	330	446
5	RFTxV497-657	494	655
6	RFTxV787-927	781	920
7	RFTxV807-967	802	966
8	RFTxV887-108	881	1020
9	RFTxV108-128	1010	1280
10	RFTxV208-218	2020	2160
11	RFTxV208-228	2050	2250
12	RFTxV198-238	1930	2310
13	RFTxV218-268	2130	2600
14	RFTxV228-258	2230	2540

RFME Signal Source Models			
Sr No.	Model No.	Start Frequency(MHz)	Stop Frequency(MHz)
15	RFTxV248-288	2410	2870
16	RFTxV268-328	2680	3210
17	RFTxV298-368	2960	3610
18	RFTxV328-378	3270	3720
19	RFTxV358-408	3510	4090
20	RFTxV388-468	3840	4640
21	RFTxV428-528	4270	5220
22	RFTxV478-578	4740	5750
23	RFTxV528-648	5220	6490
24	RFTxV578-708	5790	7060
25	RFTxV628-768	6250	7650
26	RFTxV668-838	6600	8330
27	RFTxV718-908	7120	9020

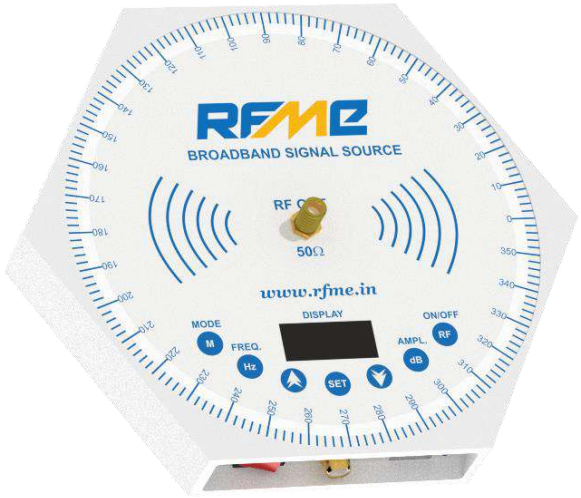
Power Detectors

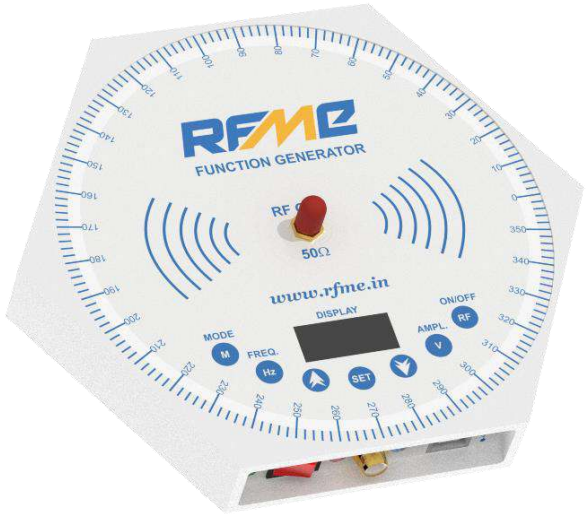


- The RFME Power Detector operates from 1MHz to 10GHz .
- It converts an RF input signal to a corresponding decibel-scaled output.
- It employs a progressive compression technique over a cascaded amplifier chain in which each stage is equipped with a detector cell.
- The input dynamic range is typically 50dB with less than ±3 dB error.
- They are used in various communication test setups for either measurement or controller modes.

RFME Power Detector Models				
Sr No.	Model Number	Start Frequency (MHz)	Stop Frequency (GHz)	Dynamic Range (dB)
1	RFRxV016-109	01	10	-55
2	RFPDV016-109-75	01	10	-75

Broadband Signal Sources





- Frequency Range: 35MHz-13.9GHz.
- Features: Long Battery life, economical, small & rigid design.
- Applications:
  - Test equipment
  - WLAN,CATV equipment
  - Clock generation
  - Point to Point/point to multipoint microwave link satellites, VSATS.

RFME Broadband Signal Source Models				
Sr No.	Model Number	Start Frequency (MHz)	Stop Frequency (MHz)	Amplitude Range (dBm)
1	RFSSV356-448	35	4400	-37.25 to +5
2	RFSSV516-688	51.6	6800	-47 to +5
3	RFSSV516-139	51.6	13900	-47 to +5

Low Frequency Broadband Signal Source / Function Generator

- Frequency Range: 1Hz-400 MHz.
- Features :long battery life, economical small and rigid design.
- Applications:
  - Liquid and gas flow arrangement.
  - Sensory applications: proximity motion and defect detection.
  - Test and Medical equipment.
  - Frequency stimulus waveform generation.

RFME Low Frequency Broadband Signal Source Models				
Sr No.	Model Number	Start Frequency (Hz)	Stop Frequency (MHz)	Amplitude Range (dBm)
1	RFDDV010-126	01	12.5	-15.5 to 0
2	RFDDV010-407	01	400	-15.5 to 0

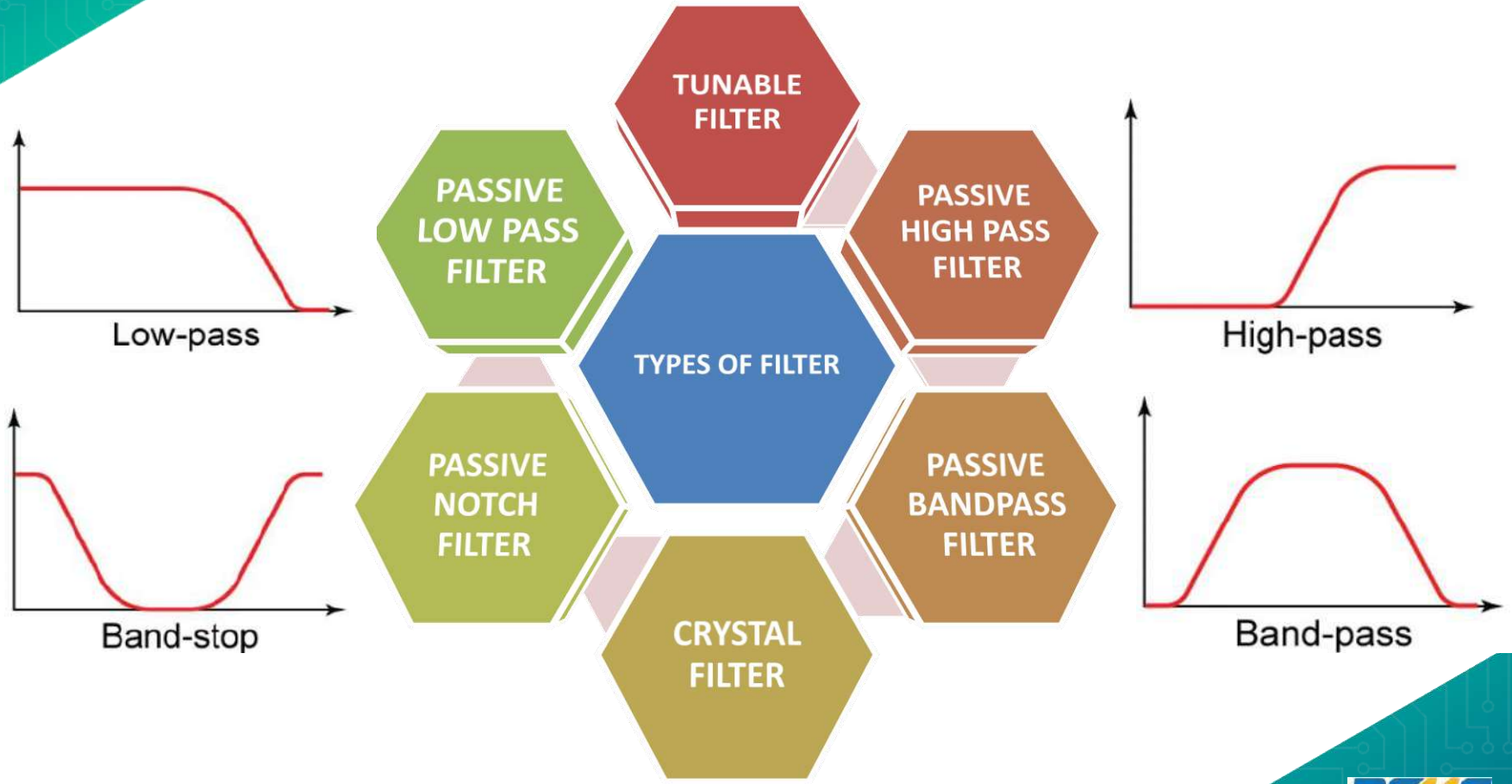
RFME Function Generator Models				
Sr No.	Model Number	Start Frequency (Hz)	Stop Frequency (MHz)	Waveform Types
1	RFFGV010-016	01	1	Sine, Triangular, Pulse, Square
2	RFFGV010-036	01	3	
2	RFFGV010-056	01	5	

Digital Step Attenuators

- Frequency Range: DC-10 GHz.
- Features: Long Battery Life , economical, small and rigid design.
- Applications:
  - Cellular infrastructure
  - Microwave radios and VSATS.
  - Test equipment and sensors.
  - Cellular/3G infrastructure.
  - WiBro/WIMAX/4G.

RFME Digital Step Attenuator Models					
Sr No	Model Number	Start Frequency (GHz)	Stop Frequency (GHz)	Attenuation (dBm)	Step Size (dBm)
1	RFATV107-608-30A	0.1	6.0	31.75	0.25
2	RFATV107-608-30B	0.1	6.0	31.5	0.5
3	RFATV107-608-30C	0.1	6.0	30	1.0
4	RFATV107-608-60D	0.1	6.0	30	3.0
5	RFATV107-608-60E	0.1	6.0	30	10.0
6	RFATV107-106_42D	DC	10	42	3.0
7	RFATV107-106_42E	DC	10	42	10.0

RF Filters


TUNABLE FILTER
PASSIVE LOW PASS FILTER
PASSIVE HIGH PASS FILTER
TYPES OF FILTER
PASSIVE NOTCH FILTER
PASSIVE BANDPASS FILTER
CRYSTAL FILTER
Low-pass
High-pass
Band-stop
Band-pass

RF Filter Features

- Rugged Shielded Case
- Custom Design
- Low Insertion Loss
- VSWR 1.5:1
- Can Be used for Broadband Applications.

RFME LOW PASS FILTER MODELS						
SR.No	MODEL NO.	PASSBAND FREQUENCY	STOPBAND FREQUENCY	PASSBAND INSERTION LOSS [dB]	PASSBAND RETURN LOSS [dB]	TECHNOLOGY USED
1	RFL3505-5005SLC	DC-50 MHz	80 MHz	≤-3	≥-15	LUMPED LC
2	RFL5005-8005SLC	DC-80 MHz	100 MHz	≤-3	≥-15	LUMPED LC
3	RFL7505-1206SLC	DC-120 MHz	200 MHz	≤-3	≥-15	LUMPED LC
4	RFL1136-1886SLC	DC-188 MHz	250 MHz	≤-3	≥-15	LUMPED LC
5	RFL1826-2206SLC	DC-220 MHz	300 MHz	≤-3	≥-15	LUMPED LC
6	RFL2286-3746SLC	DC-374 MHz	500 MHz	≤-3	≥-15	LUMPED LC
7	RFL3976-6536SLC	DC-636 MHz	800 MHz	≤-3	≥-15	LUMPED LC
8	RFL4906-8006SLC	DC-800 MHz	900 MHz	≤-3	≥-15	LUMPED LC

RFME LOW PASS FILTER MODELS						
SR.No	MODEL NO.	PASSBAND FREQUENCY	STOPBAND FREQUENCY	PASSBAND INSERTION LOSS [dB]	PASSBAND RETURN LOSS [dB]	TECHNOLOGY USED
9	RFL3976-6536SLC	DC-636 MHz	800 MHz	≤-3	≥-15	LUMPED LC
10	RFL4906-8006SLC	DC-800 MHz	1 GHz	≤-3	≥-15	LUMPED LC
11	RFL8006-1207SLC	DC-1.2 GHz	2.2 GHz	≤-3	≥-15	LUMPED LC
12	RFL3105-5205SLC	DC-52 MHz	80 MHz	≤-3	≥-15	LUMPED LC
13	RFL4705-7805SLC	DC-78 MHz	90 MHz	≤-3	≥-15	LUMPED LC
14	RFL7205-1216SLC	DC-121 MHz	210 MHz	≤-3	≥-15	LUMPED LC
15	RFL1296-2136SLC	DC-213 MHz	350 MHz	≤-3	≥-15	LUMPED LC
16	RFL2206-3256SLC	DC-325 MHz	500 MHz	≤-3	≥-15	LUMPED LC
17	RFL3666-6106SLC	DC-610 MHz	800 MHz	≤-3	≥-15	LUMPED LC
18	RFL5006-8806SLC	DC-880 MHz	1.5 GHz	≤-3	≥-15	LUMPED LC
19	RFL6006-1007SLC	DC- 1 GHz	1.8 GHz	≤-3	≥-15	LUMPED LC

RFME LOW PASS FILTER MODELS						
SR.No	MODEL NO.	PASSBAND FREQUENCY	STOPBAND FREQUENCY	PASSBAND INSERTION LOSS [dB]	PASSBAND RETURN LOSS [dB]	TECHNOLOGY USED
20	RFL2206-3256SLC	DC to 325 MHz	500 MHz	≤-3	≥-15	LUMPED LC
21	RFL3666-6106SLC	DC to 610 MHz	850 MHz	≤-3	≥-15	LUMPED LC
22	RFL4505-7805SLC	DC to 78 MHz	100 MHz	≤-3	≥-15	LUMPED LC

RFME HIGHPASS FILTER MODELS						
SR.No	MODEL NO.	PASSBAND FREQUENCY	STOPBAND FREQUENCY	PASSBAND INSERTION LOSS [dB]	PASSBAND RETURN LOSS [dB]	TECHNOLOGY USED
1	RFH3005-4805SLC	30 MHz	15 MHz	≤-3	≥-15	LUMPED LC
2	RFH5005-8005SLC	50 MHz	25 MHz	≤-3	≥-15	LUMPED LC
3	RFH8005-1366SLC	80 MHz	35 MHz	≤-3	≥-15	LUMPED LC
4	RFH1806-3166SLC	180 MHz	85 MHz	≤-3	≥-15	LUMPED LC
5	RFH2506-4106SLC	250 MHz	125 MHz	≤-3	≥-15	LUMPED LC
6	RFH3506-6006SLC	350 MHz	175 MHz	≤-3	≥-15	LUMPED LC
7	RFH6506-1017SLC	650 MHz	325 MHz	≤-3	≥-15	LUMPED LC
8	RFH8006-1307LC	800 MHz	365 MHz	≤-3	≥-15	LUMPED LC

RFME BANDPASS FILTER MODELS							
SR.No	MODEL NO.	PASSBAND FREQUENCY	STOPBAND FREQUENCY		PASSBAND INSERTION LOSS [dB]	PASSBAND RETURN LOSS [dB]	TECHNOLOGY USED
1	RFB1184-1684SLC	1.18-1.68 MHz	590 KHz	3 MHz	≤-3	≥-15	LUMPED LC
2	RFB9006-1106SLC	90-110MHz	50 MHz	200 MHz	≤-3	≥-15	LUMPED LC
3	RFB9005-1506SLC	90-150MHz	50 MHz	210 MHz	≤-3	≥-15	LUMPED LC
4	RFB1006-1806SLC	100-180MHz	50 MHz	300 MHz	≤-3	≥-15	LUMPED LC
5	RFB1206-1306SLC	120-130MHz	60 MHz	200 MHz	≤-3	≥-15	LUMPED LC
6	RFB1706-2306SLC	170-230MHz	65 MHz	400 MHz	≤-3	≥-15	LUMPED LC

RFME TUNABLE LOW PASS FILTER MODELS					
SR.No	MODEL NO.	PASSBAND FREQUENCY	PASSBAND INSERTION LOSS [dB]	PASSBAND RETURN LOSS [dB]	TECHNOLOGY USED
1	RFL0230-7802BT	23Hz to 78KHz	≤-1	≥-20	TUNABLE
2	RFL0950-3003BT	95Hz to 300KHz	≤-1	≥-20	TUNABLE
3	RFL1001-1203BT	1KHz to 120KHz	≤-1	≥-20	TUNABLE
4	RFL0100-3602BT	10Hz to 36KHz	≤-1	≥-20	TUNABLE
5	RFL2001-2002BT	2KHz to 20KHz	≤-1	≥-20	TUNABLE
6	RFL1000-1002BT	100Hz to 10KHz	≤-1	≥-20	TUNABLE

FILTER APPLICATIONS

LOW PASS FILTER

- Audio receiver and Equalizer
- Oscilloscope
- Music control system and Bass frequency modulation

HIGH PASS FILTER

- Function Generator
- Treble frequency modulation.
- Pulse Generators.
- Square Wave Generator

BANDPASS FILTER

- Wireless communication
- Optimize SNR ratio for receiver
- Broad band signal analyzer

NOTCH FILTER

- DSL Telephonic Line
- Public Address system
- ECG Measurement Instrument

CRYSTAL FILTER

- Wireless application
- Front-end Radio Transmitters
- High Quality Radio Receivers

TUNABLE FILTER

- Versatile Frequency Generators
- Field Programmable Filter Array [FPFA]

Pre Amplifier

- Frequency Range: DC-10 GHz.
- Features: economical, small & rigid design.
- Applications:
  - Software Defined Radios
  - Radar applications
  - Hiper LAN
  - Wireless Local Loop
  - MMDS
  - Electronic Warfare.

RFME Pre Amplifier Models				
Sr No.	Model Number	Start Frequency (GHz)	Stop Frequency (GHz)	Gain (dB)
1	RFPRFDC-608-A15	DC	6.0	15
2	RFPRF505-956-A20	0.05	0.95	20
3	RFPRF867-897-A19	0.86	0.89	19
4	RFPRF158-228-A16	1.50	2.20	16
5	RFPRF248-258-A16	2.40	2.50	16
6	RFPRF238-388-A13	2.30	3.80	13

Application Notes

- Signal source (TX alone)
- Power Detection (RX alone)
- Measurement of Cable Loss
- Measurement of an Attenuator
- Measurement of an Pre Amplifier
- Measurement of Directional Coupler
- Measurement of Splitter/Combiner
- Measurement of Circulators
- Measurement of RF Filter
- Measurement of Diplexer
- Equipment/microwave equipment leakage testing

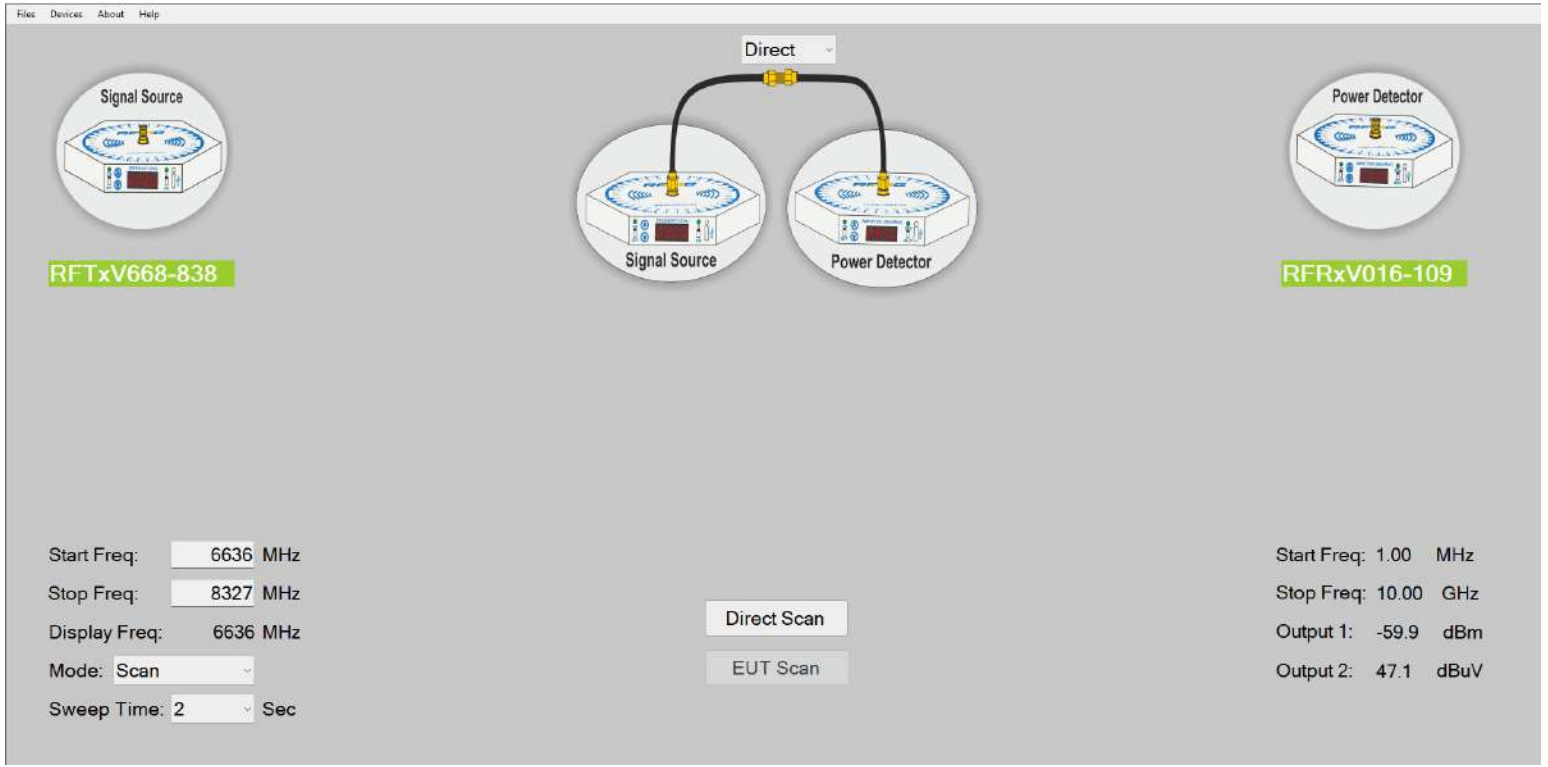
- Quick Test Setup Verification
- Measurement of transmission line loss
- Tuning of matching circuit
- Tuning of an Antenna
- Tuning of an Antenna with matching circuit
- Measuring of Antenna gain
- Measurement of Radiation Pattern
- To check shielding effectiveness
- To check field uniformity (TEM Cell Application)
- Mixer Testing
- To check the range of radiating mobile towers
- To check Modulation and Demodulation

RF MICROTECH ELECTRONICS

RFME KIT UPTO 6 GHz

- Signal Source
- Power Detector
- Digital Step attenuator
- Pre-amplifiers
- Fixed Attenuators
- Low pass filters
- High pass filters
- Band pass filters
- Directional couplers
- Splitters & Combiners
- RF Mixers
- RF Switchs
- Antennas
- 50 Ohm Termination
- SMA (F) to SMA (F) adaptors
- SMA (M) to SMA (M) Cables
- 5V Charger & USB Cables

RFME Graphic User Interface



For More Details

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