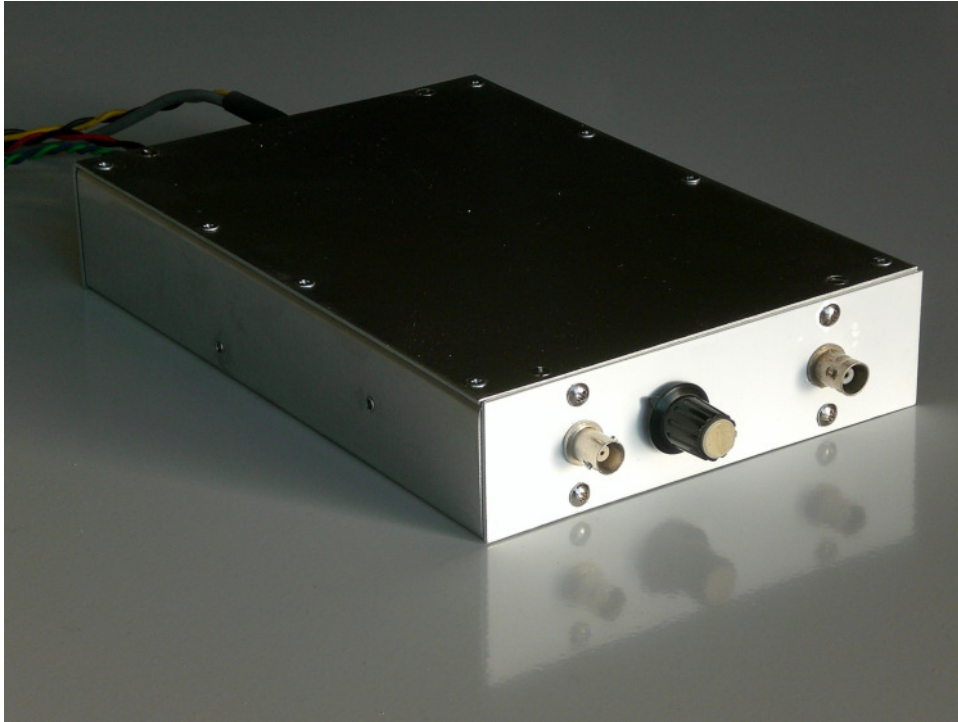


R 100

FM PROFESSIONAL SDR RECEIVER MODULE



R 100 is a professional FM receiver module controllable by RS232 serial port or the USB port of a personal computer . Always by USB or serial port on acquire the received signal parameters . **R 100** is provided of an auxiliary MPX input for the testing of this signal from an external source . **R 100** is also provided of internal audio power amplifier .

The receiver has been realized to employ in local or remote computerized systems of radiomonitoring. The reduced sizes (PC standard format) make possible its accomodation directly in the personal computer case.

V.B.E. S.r.l.

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R 100 OPTION AVAILABLES

- **OPT01** Auxiliary 10,7 MHz IF Input Connector
- **OPT02** Audio Stereo L & R Output Connector
- **OPT03** RDCL + RDDA RDS Signals Output Connector
- **OPT04** MPX Signal Output Connector
- **OPT05** 4 auxiliary **TTL controlled inputs**

R 100 SPECIFICATIONS *

Frequency Measurement Range	85 to 110	MHz
Frequency Resolution	100	KHz
RF Level Measurement Range	-30 to -80	dBm
RF Level Measurement Accuracy	+ / - 2	dB
Third-Order Intermodulation (Two -30 dBm tones at input and 300 KHz separation)	< - 75	dBm
Freq. & Measurement Setting Time (Typ.)	3	S
IF Resolution Bandwidth	180	KHz
Adjacent Channel Rejection (Typ.)	40	dB
Demodulation Bandwidth	10 to 100.000	Hz
MPX Auxiliary Input Level (eq. 75 KHz FM deviation)	2.2	V.ptp
FM Deviation Measurement Range	1 to 150	KHz
FM Deviation Measurement Accuracy (60 - 90 KHz FM ; 0.01-6 KHz mod.)	+ / - 4	KHz
FM Peak Deviation Measurement Setting Time (Typ.)	10	mS
19 KHz Stereo Carrier Measurement Range	-8 to -28	dBc
RDS Carrier Measurement Range	-20 to -40	dBc
19 KHz & RDS Carrier Measurement Accuracy (-40 dBm RF in; total 75 KHz deviation)	+ / - 1	dB
RF Input Connector	BNC	
MPX Input Connector	BNC	
Power Connector	Mate-n-lock	
RS232 Connector	DB 9 F	
Speaker Connector	Mate-n-lock	
Size Lx Hx P	14,5x4,1x21	cm
Power (Typ.)	12 VDC; 0,35A	
Operating temperature	- 10 to + 40	°C

V.B.E. S.r.l.

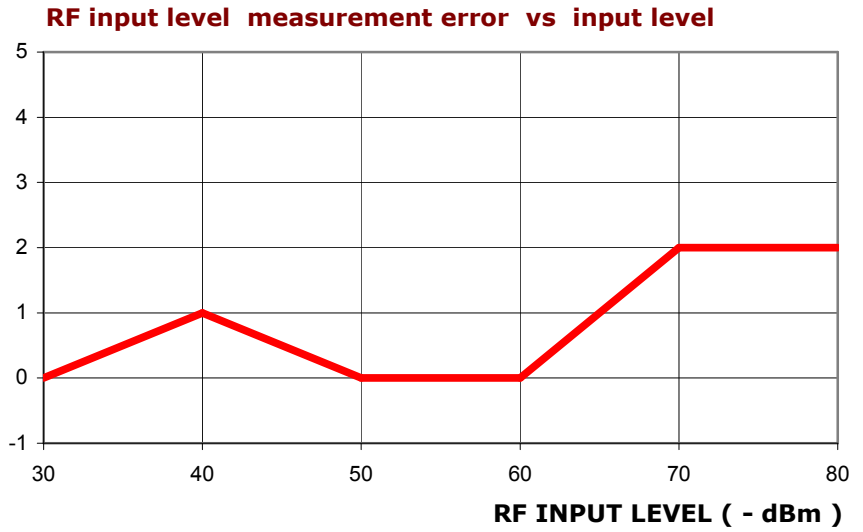
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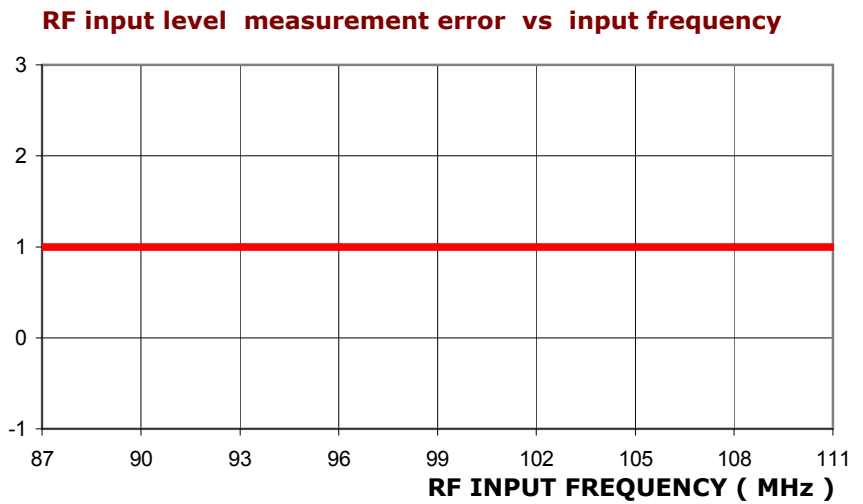
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TYPICAL RF PERFORMANCE CHARACTERISTICS

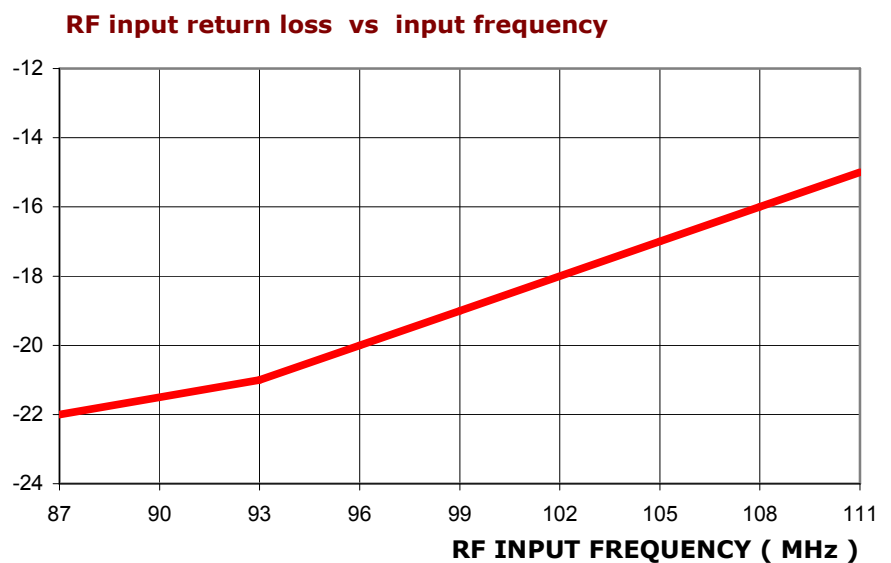
Measurement error (dB)
@ input frequency= 97 MHz



Measurement error (dB)
@ input RF level= -40 dBm

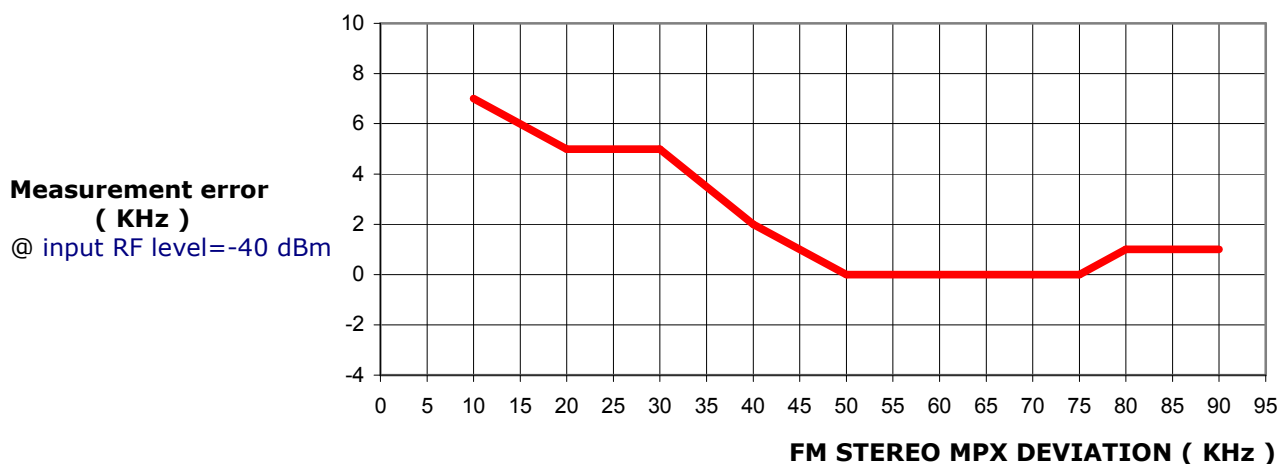


Return loss (dB)
@ input RF level= -40 dBm

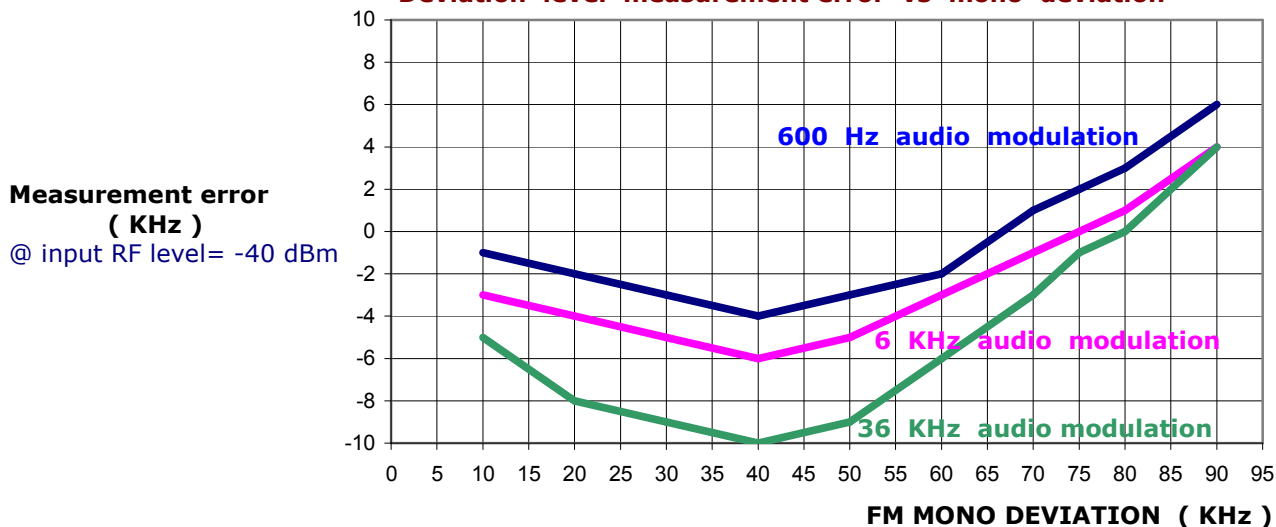


TYPICAL DEMODULATION PERFORMANCE CHARACTERISTICS

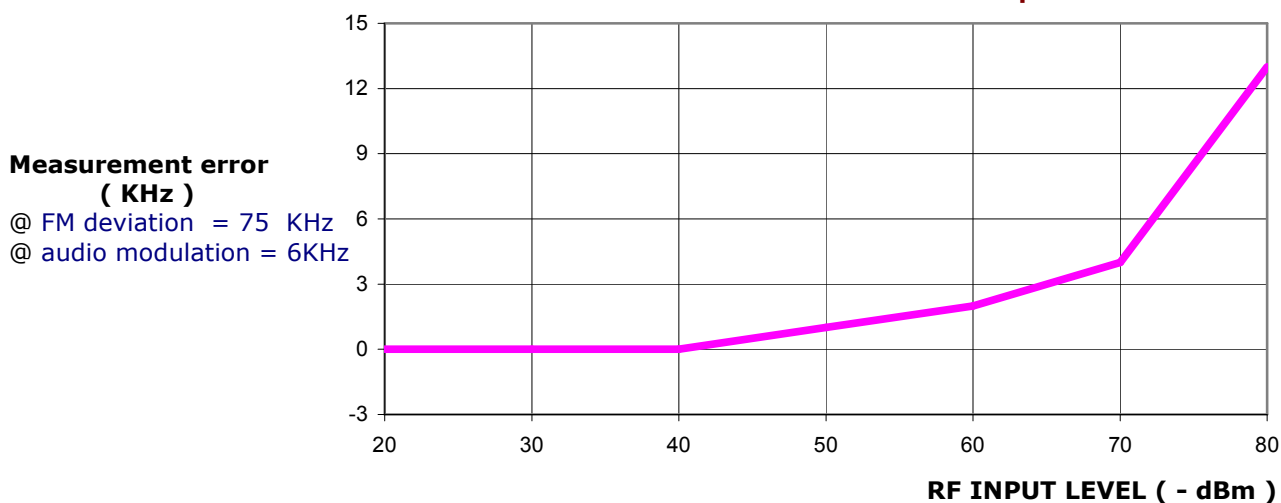
Deviation level measurement error vs stereo MPX deviation



Deviation level measurement error vs mono deviation



Deviation level measurement error vs RF input level



TYPICAL DEMODULATION PERFORMANCE CHARACTERISTICS
