Gyro-1122

Tri-Band DAB Receiver Module

All Green 環保無鉛

Lead-Free

The Gyro-1122 Portable DAB Receiver Module is the new released member of GyroSignal DAB products. The whole new designed User Operation Interface makes it differentiate itself from others, it is smaller (footprint 75 x 44 mm), low power consumption, full bands coverage (DAB Dual Bands with FM) and value-added feature like Alarm Clock, CD operation or other customerization. Ideally the Gyro-1122 module would fit most of radio applications with high standard performance, please refer to the detail specifications

The Gyro-1122 DAB receiver module provides multiple options for customer ordering, the DAB Dual Bands (Band III, L Band including Canada frequency), FM band (88 ~ 108 MHz), Clock Radio functions, CD control and IR remote. Please contact GyroSignal for details !

Features:

> DAB Band III, L Band and FM
> CD Control is optional in the module
> Host mode/Slave Mode control
> Less than 1 Watt Power Consumption
> Single 3Vdc supply voltage
> Single antenna input
> Small Footprint: 76 x 44 mm
> Lead-Free Design

Options:

> L Band Reception
> FM Band Reception
> IR Remote
> RDS Decoder Software
> CD Control Operation

Applications:

> DAB/FM Portable radio,
> DAB/FM Clock Radio
> DAB/FM/CD Boombox, Mini Micro system
> DAB Hi-Fi Tuner

Specifications:

Parameter	Condition/Features	Min	Typical	Max	Unit
	DAB				
DAB modes	Supports modes: I, II, III, IV				
RF frequency range	VHF	174		240	MHz
	L-Band (standard and Canada)	1452		1492	MHz
Sensitivity	VHF Measurement to EN50248. Refer to Note 1 and Note 2.	-94	-96		dBm
	L-Band Measurement to EN50248. Refer to Note 1 and Note 2.	-94	-95		dBm
Maximum Input Signal for Pseudo channel BER with real value 1%	L-band after error correction	-10	-5		dBm
	Band III after error correction	-10	-5		dBm
Adjacent Channel Selectivity	Measurement to EN50248	32	33		dBm
Far-off selectivity	Measurement to EN50248 Refer to Note 2 and 3	45	48		dBm
Acquisition sensitivity	Exclude:13F min/typical are -99/-101dbm	-100	-102		
Input Impedance	F type connector (to VHF/L-Band diplexer)			50	Ohm
Power Consumption (with 3.3Vdc)	DAB L-band master mode		295		mA
	DAB Band III master mode		270		mA
Supply Voltage (RF pin1)		2.7	3	3.3	V
Supply Voltage (BB pin3)		3.0	3.3	3.6	V
Supply Voltage ripple				5	%
Audio THD	CS4348, with instrumental 20K LPF		0.08	0.1	%
Audio SNR	CS4348, with instrumental 20K LPF	80	82		dB
Audio Output Load Impedance		10			K Ohm
Output Level	CS4348	0.99	1.10	1.21	Vp-p
	DAC23	1.23	1.25	1.27	Vp-p
	FM				
RF Frequency Range		87.5		108	MHz
Power Consumption(With 3.3Vdc)	FM mode	130	146	160	mA
RF Sensitivity	(S+N)/N=26dB 90MHz@22.5KHz Dev. Fmod=1KHz	8	5		uV
RF Limiting Sensitivity		1	0.5		uV
(S+N)/N	Ultimate signal to noise ratio 90MHz @ 200mV/22.5KHz Dev. Fmod=1KHz	50	63		dB
THD	90MHz@200mV/75KHz Dev. Fmod=1KHz		0.53	1.2	%
Stereo Channel Separation		24	30		dB
Audio Output Load Impedance			10		KOhm
Output Level (CS4348)	90MHz@75KHz Dev. Fmod=1KHz	0.68	0.75	0.83	Vp-p
Output Level (DAC23)	90MHz@75KHz Dev. Fmod=1KHz	0.68	0.73	0.8	Vp-p
Operating Temperature Range		-10	60	65	°C
Storage Temperature Range		-20		85	°C
Operating Humidity	Relative Humidity		80		%
Storage Humidity	Relative Humidity		80		%

Note 1: Taking the measurement in terms of the EVM SMA connector to module.
Note 2: The BER is approximated by Pseudo channel BER with real value 0.02. The principle behind Pseudo channel BER is available on documents such as references.
Note 3: DAB Far-off selectivity using FM signal with deviation 75K. The frequency offset is 2.5MHz.