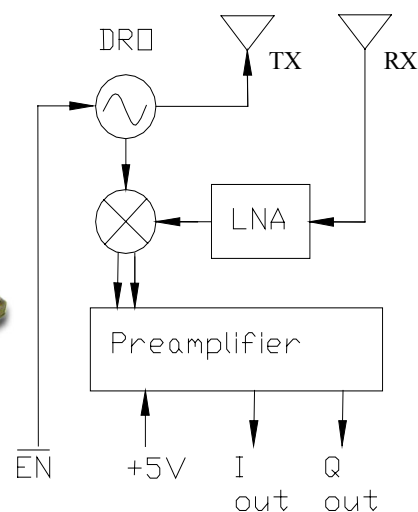
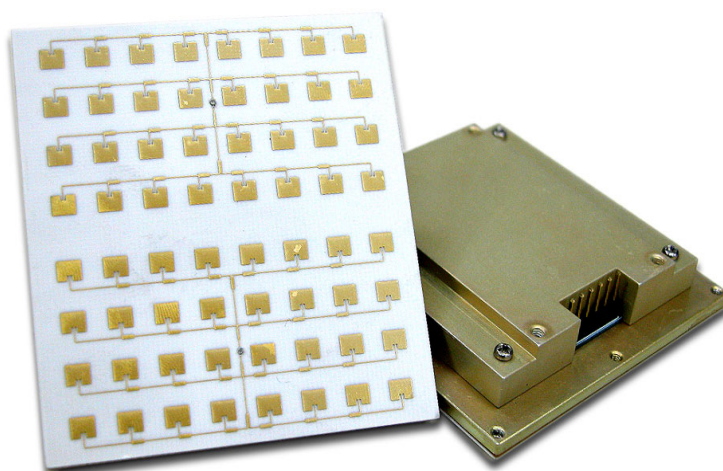


K-Band (24 GHz) Doppler RF Transceiver Module



Block diagram

Description

DF100 is a K-Band Bi-Static Doppler transceiver module with built-in Low-Noise Amplifier (LNA) and pre-amplifier for higher sensitivity, making it ideal for long-range motion detection. It has an I-Q outputs for direction of motion identification.

This module is suitable for traffic applications such as vehicle counters and speed sensing.

Microwave Sensors From Agilis

Features

- Low current consumption
- High sensitivity
- Flat profile
- Low harmonics emission

Applications

- Traffic counters
- Speed measurement

Variants

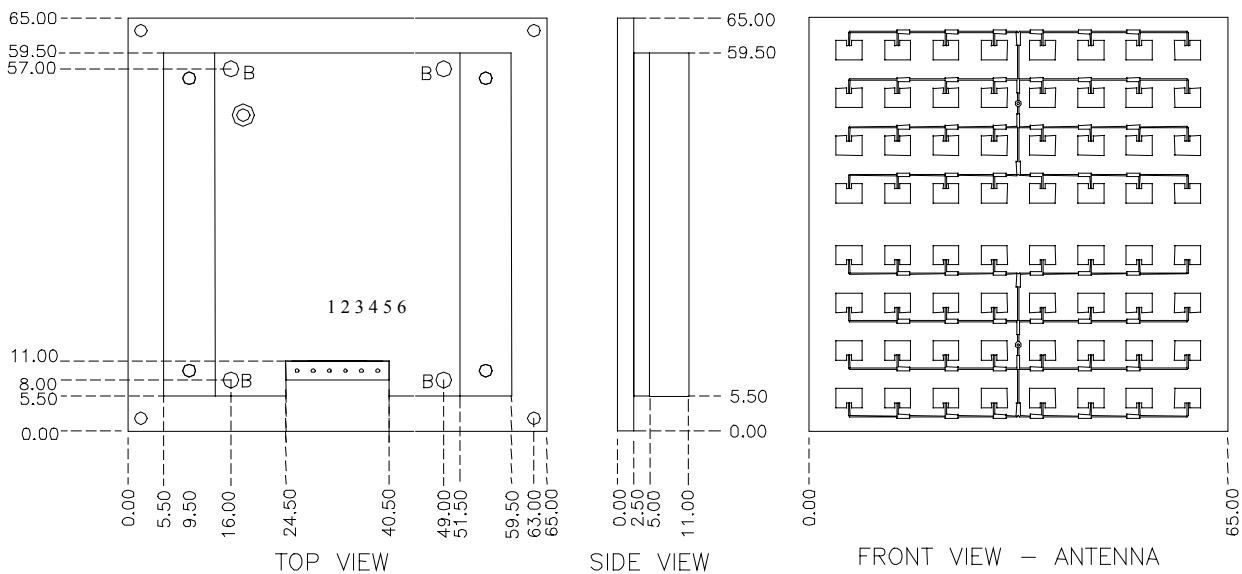
Model	Centre Frequency
DF100	24.125 GHz
DF100-1	24.200 GHz



CERT. NO. : 94-1-0033
SS ISO 9001 : 2000

Technical Specifications

Outline diagram (All dimensions in mm)



User interface pin definition: 1: EN, 2: +5V, 3: GND, 4: IF1, 5: IF2, 6: RESERVED

Unless noted otherwise, the specifications are measured with +5VDC, CW operation, 12 kΩ load at ambient temperature of +25°C.

Parameter	Notes	Min	Typ	Max	Units
Radiated Power (EIRP)	1	16	18	20	dBm
Spurious Emission	1			-30	dBm
Output Delay after assertion on EN [^] pin				20	μSec
Sensitivity			-110		dBm
Antenna Beam-width (3 dB) - Azimuth			12		°
Antenna Beam-width (3 dB) - Elevation			24		°
Antenna sidelobes			-18		dB
Supply Voltage		4.75	5.00	5.25	VDC
Current Consumption (on/off)			50/20	60/30	mA
I&Q Amplitude balance			1	3	dB
I&Q phase difference		70	90	110	°
IF amplifier gain			50		dB
IF amplifier bandwidth			200 -15k		Hz
Operating Temperature		-40		80	°C
Weight			75		gm

Note 1 : The radiated emissions is designed to meet the requirements of EN 300 440

VER 1.00

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