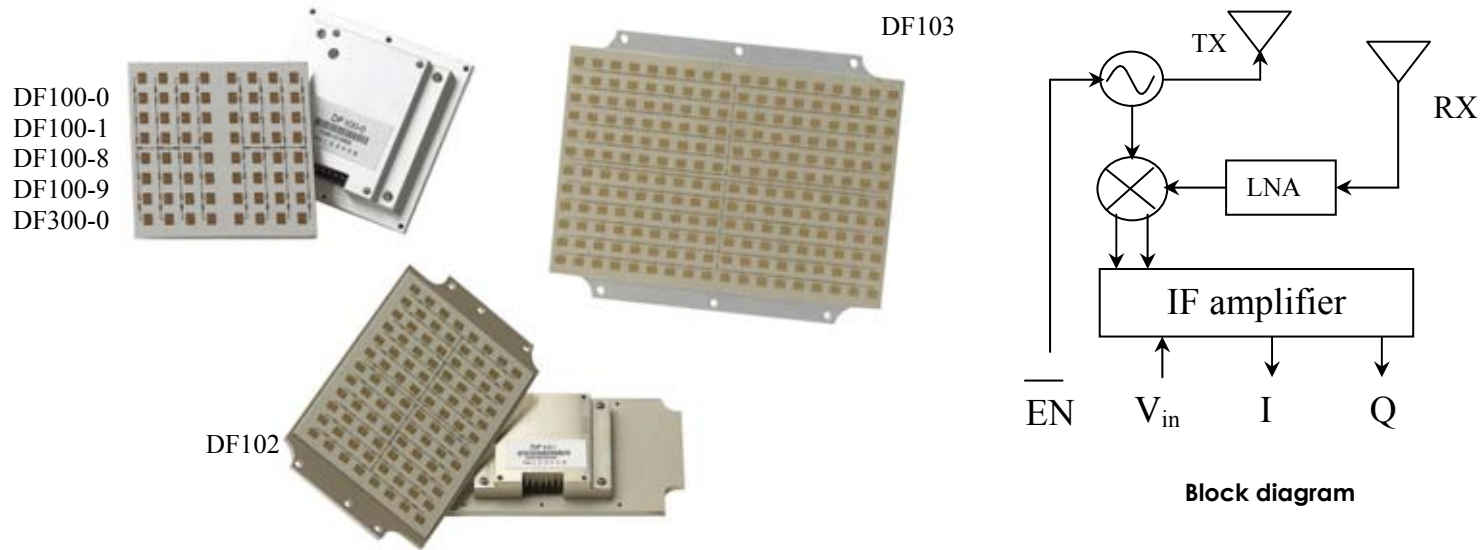


K-Band Doppler RF Transceiver Modules



Description

DF series modules are K-Band Bi-Static Doppler transceiver modules with built-in Low-Noise Amplifiers (LNAs) and pre-amplifiers for higher sensitivity, making it ideal for long-range motion detection. They have I-Q outputs for direction of motion identification.

Features

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

Applications

- Traffic counters
- Speed measurement



DF SERIES SELECTION LIST

Model Selection Table

Model	Frequency Setting (GHz)	EIRP (dBm)	Beam angle (H-, E-plane)	IF Bandwidth ⁴ (Hz)	Speed limits ⁴ (km/h)	IF Amp Gain (dB)	Settling time ⁵ (ms)	Supply Min - Max (V)	Typ. current EN = on/off (mA)	Dimension (mm)	Weight (g)
DF100-0	24.125	20	(12°, 24°)	200-15k	4.5 - 336	50	10	3.6 – 9.0	45 / 15	65 x 65	75
DF100-1	24.200	20	(12°, 24°)	200-15k	4.5 – 336	50	10	3.6 – 9.0	45 / 15	65 x 65	75
DF100-8	24.125	20	(12°, 24°)	240-15k	5.5 - 336	37	5	2.6 – 5.5	45 / 1	65 x 65	75
DF100-9	24.200	20	(12°, 24°)	240-15k	5.5 – 336	37	5	2.6 – 5.5	45 / 1	65 x 65	75
DF300-0	24.125	27	(12°, 24°)	200-15k	4.5 – 336	50	10	3.6 – 9.0	75 / 25	65 x 65	75
DF102	24.165	20	(12°, 16°)	240-15k	5.5 – 336	37	5	2.6 – 5.5	45 / 1	112.6 x 65	105
DF103	24.125	23	(6°, 16°)	200-15k	4.5 – 336	50	10	3.6 – 9.0	45 / 15	136 x 108	175

Notes:

1. Unless noted otherwise, the specifications are measured with CW operation at ambient temperature +25°C.
2. The data indicated are for reference only. Please refer to technical datasheet for latest information
3. The design, manufacturing process and specifications of these devices are subject to change without prior notice.
4. The IF bandwidth and their corresponding speed limits are typically set to mask the movement of walking pedestrian. If a very low speed needs to be measured, the lower limit can be customized at factory to 20 GHz, equivalent to ~0.4 km/h
5. The settling time is the time to taken for the IF output transient to reach steady state upon assertion of EN pin to low (ON). This pin is used to switch on/off the transmitter, to save power.

VER 1.02

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