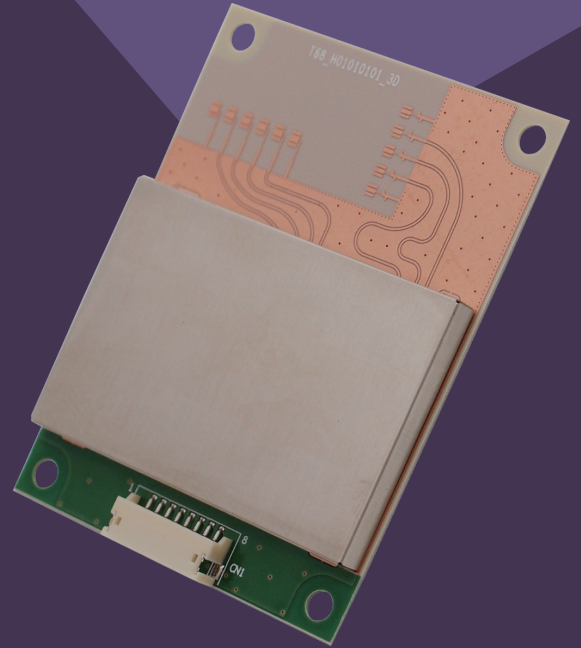


60GHz (T68PE Series) MIMO Radar Sensor Product Evaluation Kit

Our radar sensor products are high precision and small by using 60GHz radar MMIC(IWR6843) manufactured by Texas Instruments and our proprietary signal-processing technique. The products adopt MIMO (Multi Input Multi Output) technology to estimate detection of arrival with wider azimuth. Two types of antenna patterns, a horizontally polarized version capable of 2D and 3D detection are available. They are also certified with radio regulatory in Japan. The 60GHz broadband radar is a frequency band that can be used universally overseas, installed as an unlicensed station. (1) Dedicated software for evaluation is also available, so you can evaluated immediately after obtaining it. If you are considering mass production at our company, we can manufacture your own unique radar sensor products that meet your special needs.

Specifications

Size	mm	50(W)×4.7(D)×65(H)
Interface		UART×2ch(USB-TypeC)(2)
Supply Voltage	v	5.0
Current Consumption (Typ)	A	0.4
RF Frequency (Typ)	GHz	60.2 - 63.8
Modulation Bandwidth	GHz	3.6
Detection Range(Typ)	m	(Target: adult (3)) 0.4 - 9.6
Detection Angle(Typ)	deg	(MIMO operation) ±60(4) / ±55(5)
Range Resolution	cm	4.7
Chirp Time	usec	68
Measurement Cycle	msec	100
Operating Temperature Range	°C	from -20 to 65



Antenna Variations

Type Name		T68PE_H01030103_2D	T68PE_H01010101_3D
Antenna Type			
TX	Patch	1×3	1×1
RX	Patch	1×3	1×1
Transmitter Antenna Half-power Angle (Typ)			
Azimuth	deg	±60	±65
Elevation	deg	±13	±40
Receive Antenna Half-power Angle (Typ)			
Azimuth	deg	±60	±55
Elevation	deg	±13	±35
Polarization Direction		Horizontal	Horizontal
Output Power(Max)	dBm EIRP	13	13

- (1) In the United States, Europe, China, and South Korea, the transmission output EIRP is different, but it is allocated as a spectrum of broadband radar sensors for general purpose. (In the future commercialization, these products can control transmission output using firmware. In addition, certification in the country of use is required outside Japan. Please consult with us for details.)
- (2) The included UART-USB converter board is used to connect PC and can be operated with bus power.
- (3) Height 170cm/ weight 60kg(rcs 0 - 3dBsm equivalent [60GHz])
- (4) T68PE_H01030103_2D
- (5) T68PE_H01010101_3D

• Please contact the distributor or below for inquiries about this catalog.
• This specification is subject to change without prior notice.

S-TAKAYA ELECTRONICS INDUSTRY CO.,LTD

3121-1 Satomi Satoshio-cho,Asakuchi-gun, Okayama,
719-0301,JAPAN
<https://www.s-takaya.co.jp>

Macnica Clavis Company, Inc.

https://www.macnica.co.jp/business/semiconductor/manufacturers/texas_instruments/

TOKYO ELECTRON DEVICE LIMITED

<https://www.teldevice.co.jp/>

MARUBUN CORPORATION

<https://www.marubun.co.jp>