TAOGLAS®

Datasheet

SMD Mount Receptacle

Part No:
RECE.20449.001E.01

Description:

SMD HSC Compatible Receptacle

Compatible with I-PEX MHF ®4, I-PEX MHF ®4L, and Murata HSC

Features:

Mating Height: 1.2mm Max

5000 pcs per reel

Dimensions: 2 x 2 x 0.6 mm

Diameter: 1.4mm

RoHS & Reach Compliant

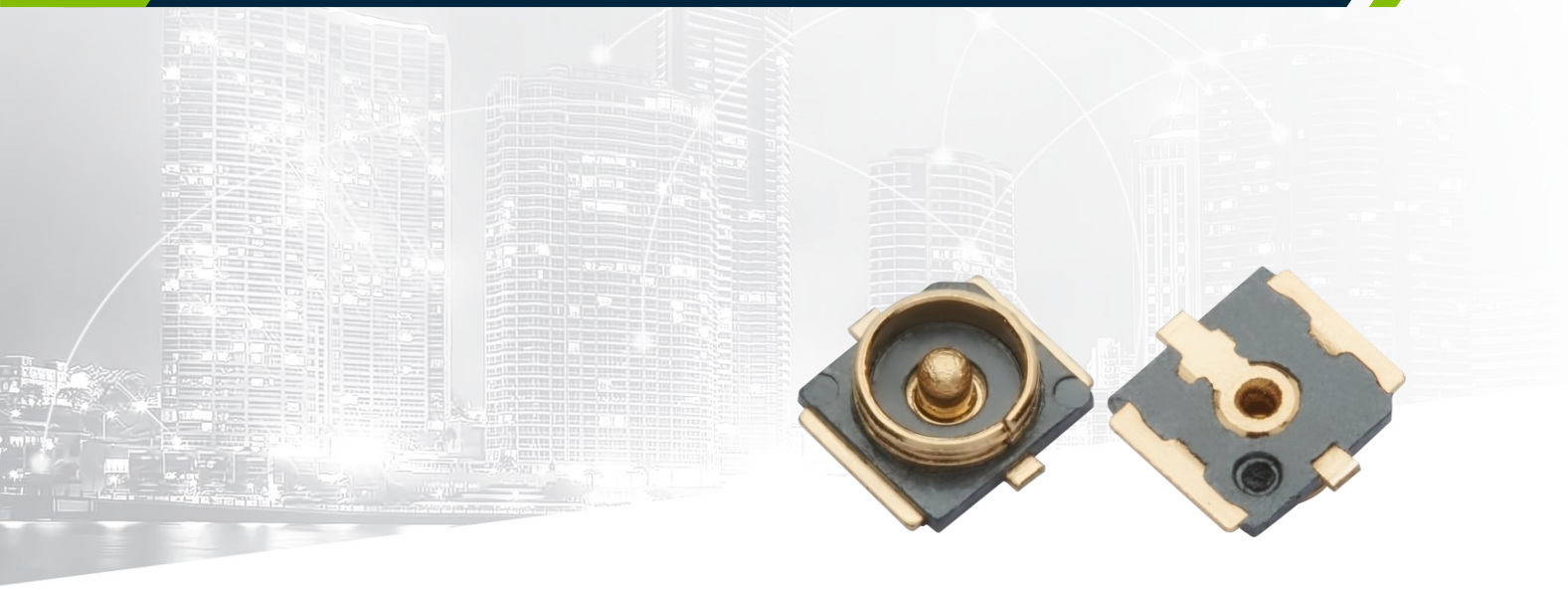
1.	Introduction	3
2.	Specifications	4
3.	Connector Data	6
4.	Mechanical Drawing	7
5.	Footprint	8
6.	Solder Reflow Profile	9
7	Packaging	10
	Changelog	

Taoglas makes no warranties based on the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and product descriptions at any time without notice. Taoglas reserves all rights to this document and the information contained herein. Reproduction, use or disclosure to third parties without express permission is strictly prohibited.

Ireland & USA
ISO 9001:2015
Certified

Taiwan
ISO 9001:2015
Certified

1. Introduction



Part of the Taoglas SMD Mount Receptacle, the RECE.20449.001E.01 is a 3-pad type wire-to-board SMD Receptacle solution that is ultra-small, lightweight, and low profile, 1.6mm max. with an operational frequency range of DC to 8 GHz the RECE.20449.001E.01 is gold plated to provide superior performance and allow easy mounting of the male RF connector.

Packaged on tape and reel, this receptacle is designed to be placed with automatic “pick and place” equipment for ease of installation.

The RECE.20449.001E.01 acts as a 50 Ohm transmission line to connect the micro-miniature RF connector to the printed circuit board. It is fully compatible with I-PEX MHF ®4, I-PEX MHF ®4L, Murata HSC and all other available HSC compatible connectors.

Applicable Technologies:
The RECE.20449.001E.01 receptacles are commonly integrated into GSM module, GPS module, Wireless LAN modules. Many 5G modules are currently using these compatible receptacles for the next generation of cellular applications.

For further information, please contact your regional Taoglas customer support team.

2. Specifications

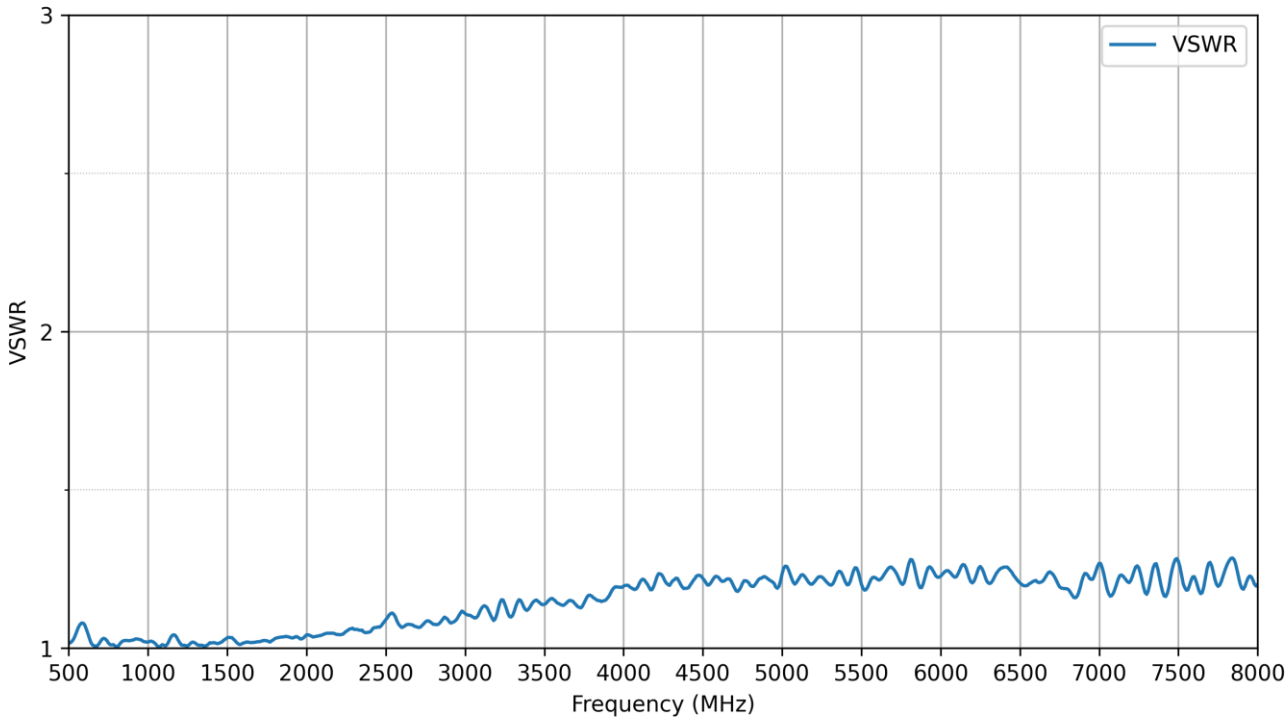
Electrical	
Operation Frequency	DC to 8 GHz
VSWR	1.2 Max at DC~3 GHz
	1.3 Max at 3~8 GHz
Nominal Impedance	50 Ohm
Rated Voltage	60V AC
Rated Current	1A Max.
Contact Resistance	Subject mated contacts assembled in housing to 20mV Max. open circuit at 10mA Max
Withstand Voltage	AC 200V/minute
Insulation Resistance	Impressed voltage 100V DC for 1min Initial：500MΩ Min. Final：100MΩ Min.
Dielectric Withstanding Voltage	200V AC for 1 minute
Current leakage	0.5mA Max
Temperature	-40 to +90°C

Material	
Outer Contact	Copper Alloy (Au plating)
Centre Contact	Copper Alloy (Au plating)
Insulator	LCP UL94-V0

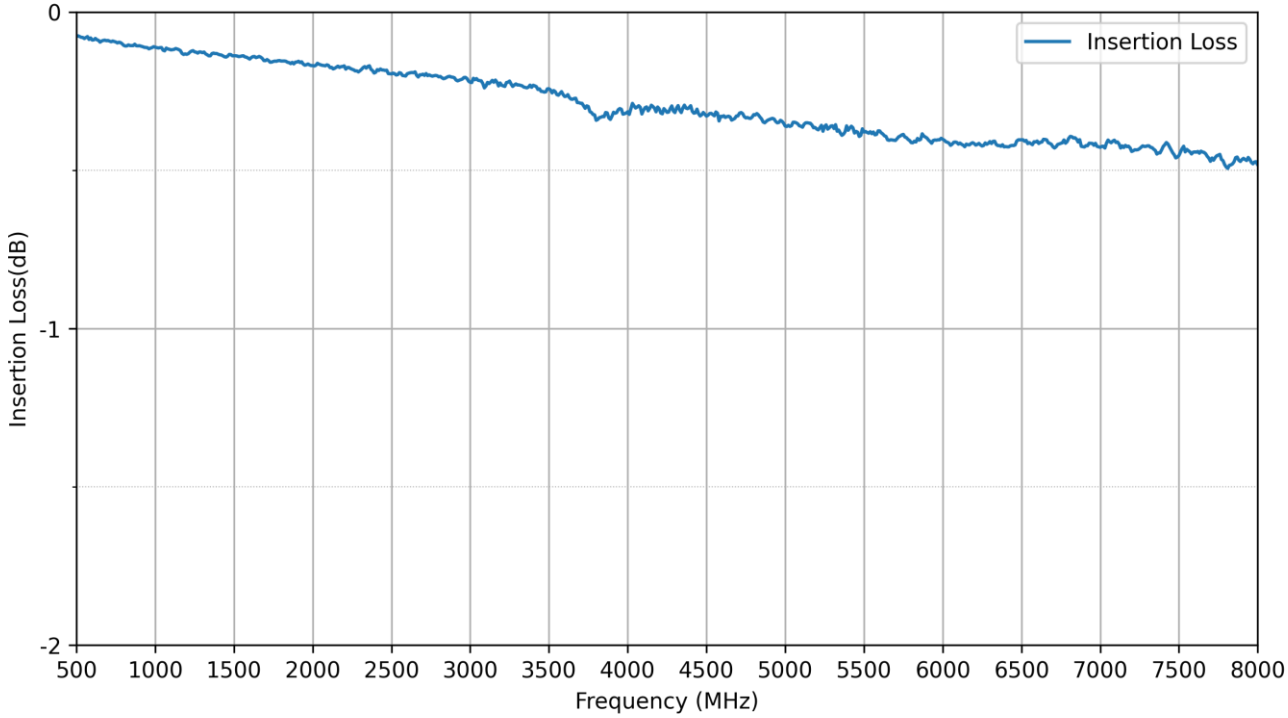
Environmental	
Durability per EIA-364-09C (2-3 cycles per min @ 30 cycles)	
Vibration	10Hz -> 100Hz -> 10Hz for 20 mins.
Peak value of acceleration	1.5mm or 59m/s2 (6G)
Direction	3 axis 3 Cycles
Mechanical Shock	
Accelerate Velocity	735m/s2 (75G)
Waveform	Half-sine shock plus.
Duration	11m sec.
Direct Current	1mA
Direction	In ±X, ±Y and ±Z axes.
Cycle	3 cycles for each direction, totally 18 cycles
Thermal Shock (40°C for 30mins to 5~35°C for 5 minutes to 90°C for 30mins to 5~35°C for 5 minutes)	
Transition Time	5 minutes
Cycles	5
Humidity	90~95% RH
Temperature	40+/- 2°C
Duration	96 hours
Salt Water Spray	
Temperature	35+/- 2°C
Salt Water Density	5+/-1% (by weight)
Duration	48 Hours
High temperature life	90+/- 2°C for 96 hours
Cold temperature life	-40+/- 2°C for 96 hours
H2S gas	
Temperature	40+/-2°C
Relative Humidity	80 +/-5% RH
Gas H2S	3+/-1 ppm
Duration	96 Hours
Moister Sensitivity Level	2

3. Connector Data

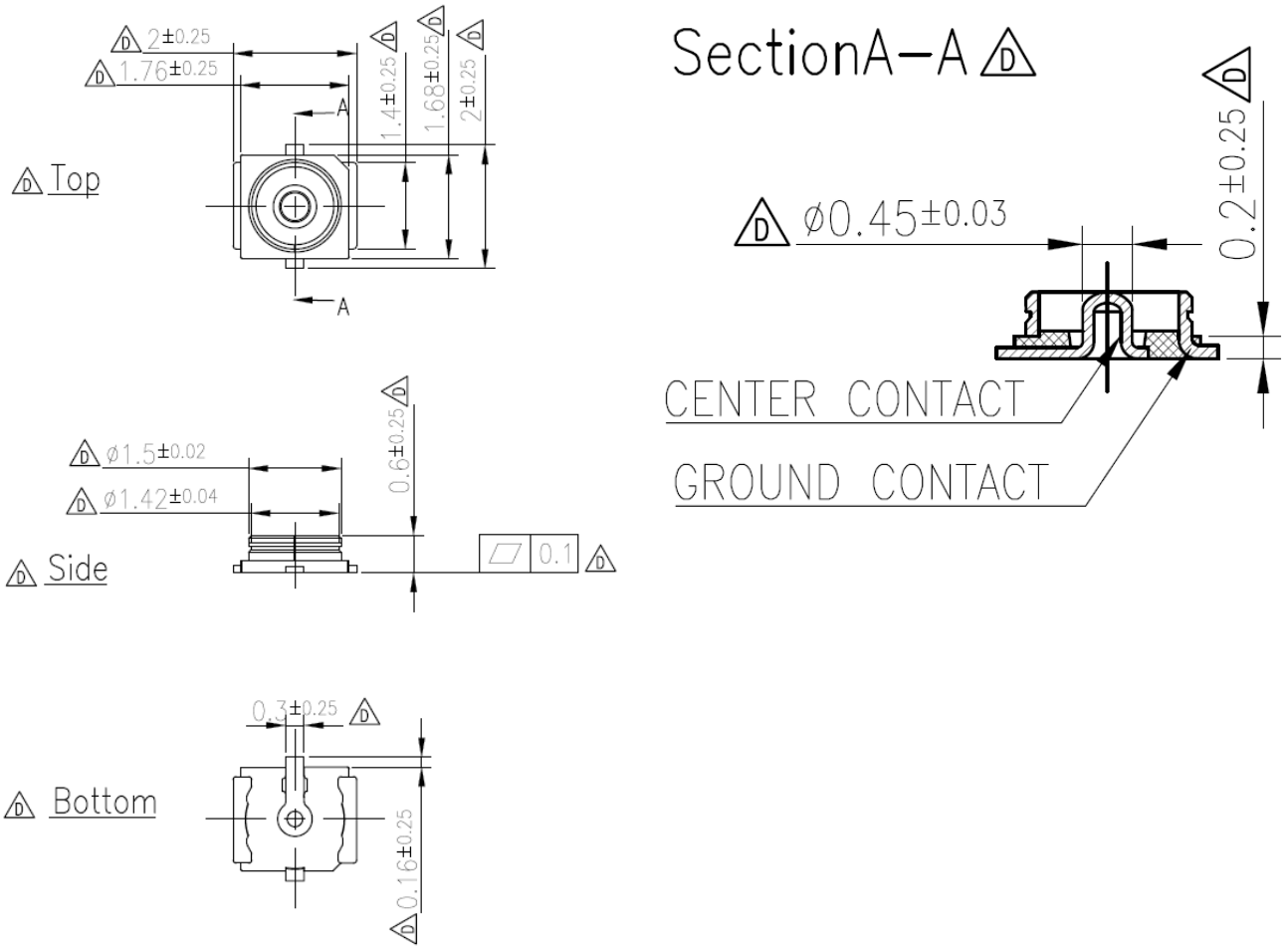
3.1 VSWR



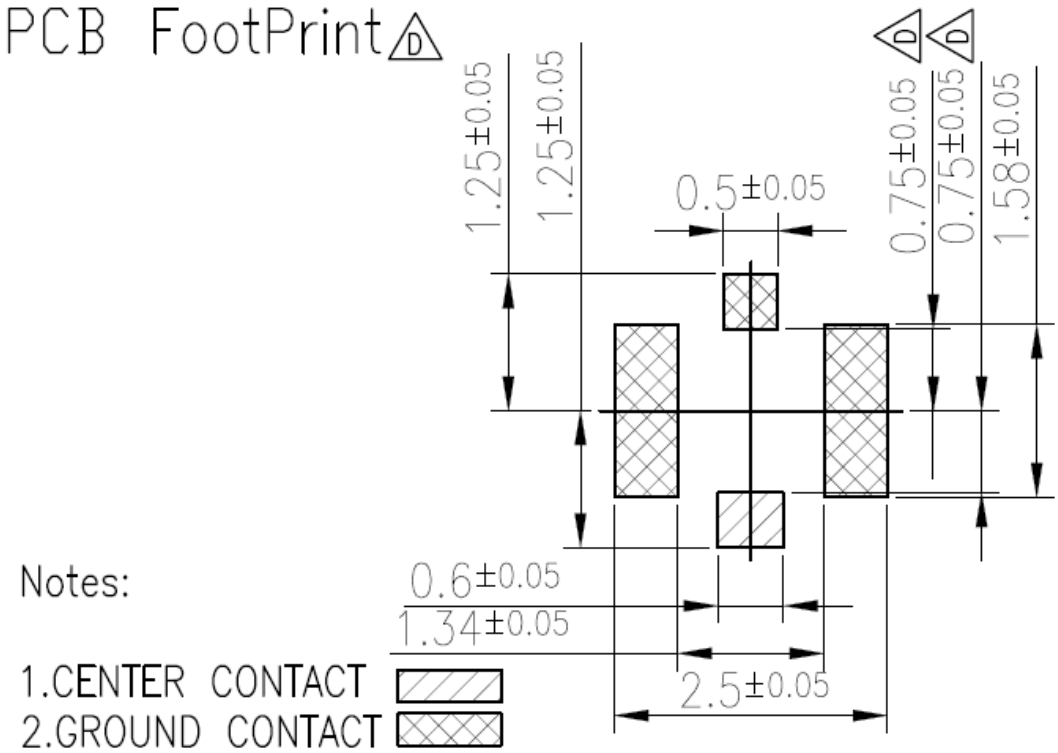
3.2 Insertion Loss



4. Mechanical Drawing (Units: mm)

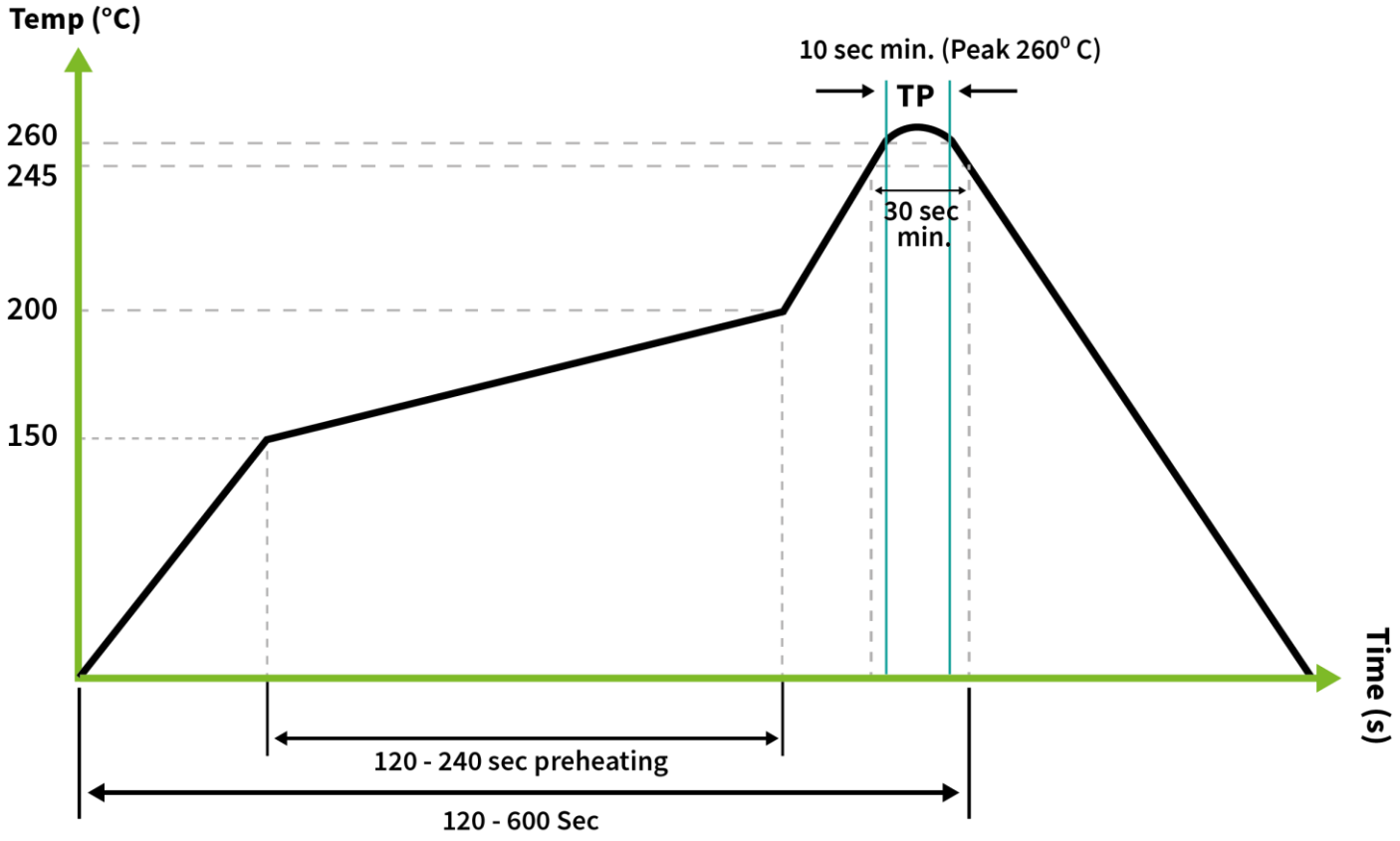


5. Footprint


PCB FootPrint
1.25±0.05
1.25±0.05
0.5±0.05
0.75±0.05
0.75±0.05
1.58±0.05
0.6±0.05
1.34±0.05
2.5±0.05
Notes:
1.CENTER CONTACT
2.GROUND CONTACT

6. Solder Reflow

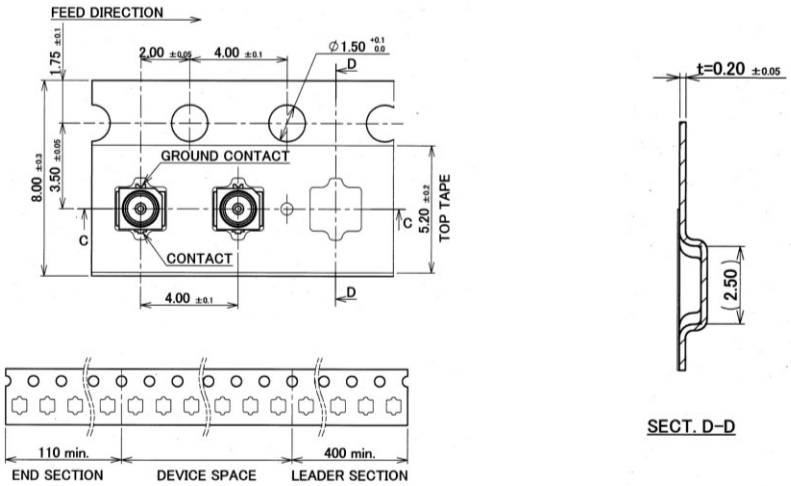
The RECE.20449.001E.01 can be assembled by following the recommended soldering temperatures are as follows:



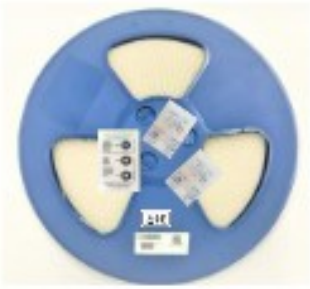
*Temperatures listed within a tolerance of +/- 10º C

Smaller components are typically mounted on the first pass, however, we do advise mounting the RECE.20449.001E.01 when placing larger components on the board during subsequent reflows.

Note: Soldering flux classified ROL0 under IPC J-STD-004 is recommended.


FEED DIRECTION
1.75 ±0.1
2.00 ±0.05
4.00 ±0.1
Ø1.50 +0.1 0.0
D
8.00 ±0.3
3.50 ±0.05
GROUND CONTACT
C
CONTACT
C
5.20 ±0.2
TOP TAPE
4.00 ±0.1
D
t=0.20 ±0.05
(2.50)
SECT. D-D
110 min.
400 min.
END SECTION
DEVICE SPACE
LEADER SECTION

7. Packaging



- ☑ 5000 PCS / Tape & Reel
- ☑ 1 PCS / Humidity indicator card
- ☑ 2 PCS / Desiccant
- ☑ CE and WEEE Label
- ☑ SPQ 1 Label

- ☑ MSID Label
- ☑ Caution Label
- ☑ SPQ 2 Label
- ☑ CE and WEEE Label

- ☑ 50,000 PCS / Carton
- ☑ Carton(mm): 350x350x220
- ☑ Weight (Kg): 5.454 ±3%
- ☑ Carton Label

Changelog for the datasheet

SPE-16-8-034 - RECE.20369.001E.01

Revision: K (Current Version)	
Date:	2025-12-24
Changes:	Updated packaging quantity
Changes Made by:	Paul Liu

Previous Revisions

Revision: J	
Date:	2025-02-24
Changes:	Updated graphs to show up to 8GHz.
Changes Made by:	Gary West

Revision: I	
Date:	2024-10-28
Changes:	Updated MSL from 3 to 2
Changes Made by:	Paul Liu

Revision: H	
Date:	2023-09-07
Changes:	Updated Solder Reflow Information
Changes Made by:	Cesar Sousa

Revision: G	
Date:	2023-03-03
Changes:	Updated specifications
Changes Made by:	Cesar Sousa

Revision: F	
Date:	2022-01-27
Changes:	Updated specifications
Changes Made by:	Cesar Sousa

Revision: E	
Date:	2022-07-05
Changes:	Updated drawing
Changes Made by:	Cesar Sousa

Revision: D	
Date:	2022-03-08
Changes:	Updated Packaging
Changes Made by:	Gary West

Revision: C	
Date:	2021-07-15
Changes:	Updated Solder Reflow Diagram & Adding MSL.
Changes Made by:	Gary West

Revision: B	
Date:	2021-02-03
Changes:	Following EC-20-8-036
Changes Made by:	Jack Conroy

Revision: A (Original First Release)	
Date:	2016-04-21
Notes:	
Author:	Jack Conroy

TAOGLAS

www.taoglas.com

© Taoglas