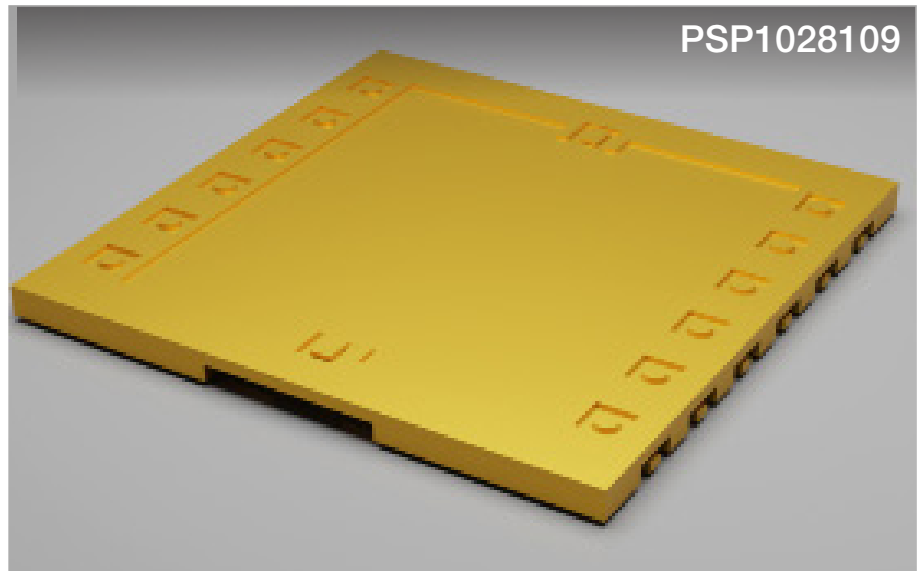


## Features and Benefits

- Ultra Low Loss, less than 0.3 dB insertion loss from DC to 50 GHz
- Ideal thermal performance due to solid copper construction
- Chip interface compatible with automated Au wire bonding
- PCB interface compatible with standard SMT processes

## Applications

- Military
- Space
- Communications
- Instrumentation

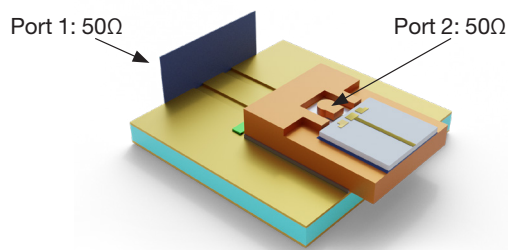


## PolyStrata® Package: PSP1028109

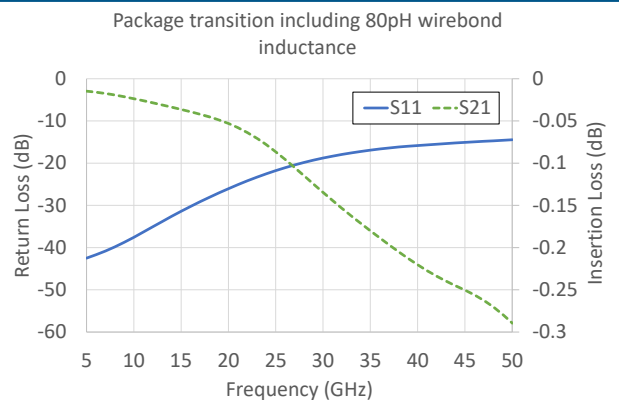
### Market-leading lowest loss, surface mount form factor package for die under 5 x 5mm up to 50 GHz.

Cubic Nuvotronics presents a new state of the art Low Loss MMIC package. The PolyStrata® package complements integrated MMIC performance, with less than 0.3 dB insertion loss up to 50 GHz and with 15 dB typical return loss. The package can be surface mounted to a PCB using standard SMT processes. This increases the ease of manufacturing while maintaining superior performance in a smaller size compared to other packaging substrates.

## Typical Electrical Performance



P1 is on the PCB with reference plane de-embedded to the edge of PolyStrata package. P2 is on the PolyStrata wire bonding pad. To approximate the wire bonds, an 80pH inductance is included in the plot for Return Loss and Insertion Loss (right figure).



### Additional Details

Special Handling / Storage Instructions (Substrate Only)	
Storage	Per JEP160 - Oxygen Sensitive Devices
ESD Sensitivity	None
Moisture Sensitivity	Not Applicable
Component Termination Finish	Immersion Gold over Immersion Silver
Packaging Available	Gel-Pak®, Tape and Reel
Ordering Part Number	PSP1028109
Export Classification	EAR99
Lid Options	Compatible with metal or plastic lids, and most lid-sealing processes

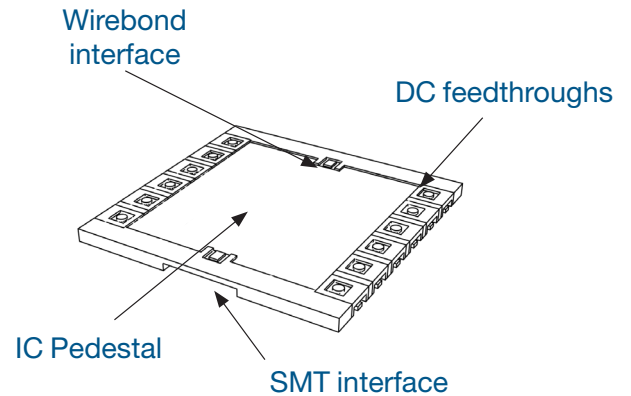
### Absolute Maximum Ratings

Current	2.0 amps
Operating Temp	-55°C to 125°C
Solder Reflow	Compatible with JEDEC J-STD-020
Epoxy Attach	150°C max. for 90 minutes

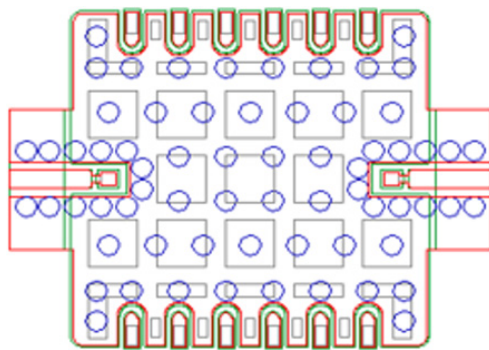
### PCB Stack-up View



### Component View

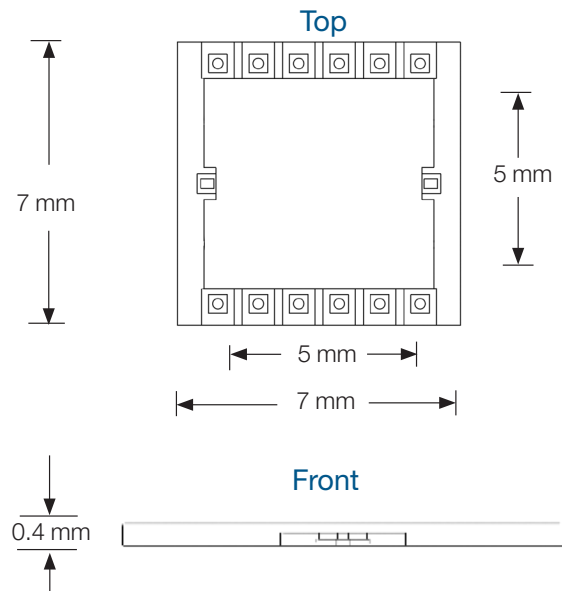


### PCB Layout



- Legend:
- TOP COPPER ■
  - TOP PASTE ■
  - TOP MASK ■
  - VIAS ■
  - PACKAGE FOOTPRINT ■

### Mechanical Drawing



3D models, S-parameters, board footprint  
 DXF drawings available on request