

# WLCSP MMICs for Micro/Millimeter-wave Applications

## New Products

SEI/SEDI proposes the WLCSP (Wafer Level Chip Scale Package) technology for the solution of the next generation device.

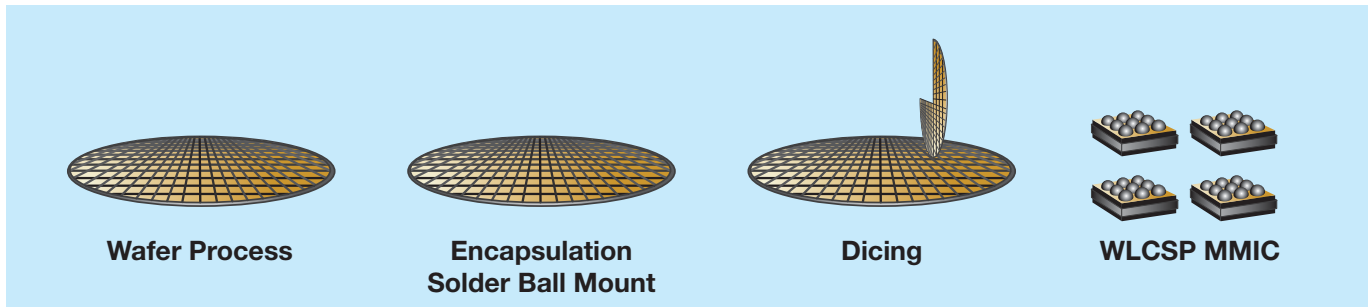
This technology achieved a very excellent frequency performance by uniting with 3- D MMIC technology, and can apply from C to E-band applications.

The WLCSP chip is the flip chip form with the solder ball and it is mountable in the SMT production line. It is unnecessary the wire bonding, it can achieve high mass productivity up to high frequency range.

### Features

- Low Cost Surface Mount Type Device
- Flip Chip Form with Solder Ball  
Solder Ball Diameter: 165 μm  
Solder Ball Pitch: 400μm
- Applicable from C to E-Band application.
- Small Size
- Highly Integrated
- Chip Level Protection against Humidity
- RoHS Compliance

### ◆Process



### Product Lineup

	13/15GHz	18/23GHz	24/30GHz	Spec
Low Noise Amp	SMM5722XZ	SMM5723XZ*	SMM5724XZ*	P10
Down Converter	SMM5139XZ	SMM5142XZ*	SMM5144XZ*	P15
Up Converter	SMM5138XZ	SMM5141XZ*	SMM5143XZ*	P15

\*Under Development

### Package Photo

