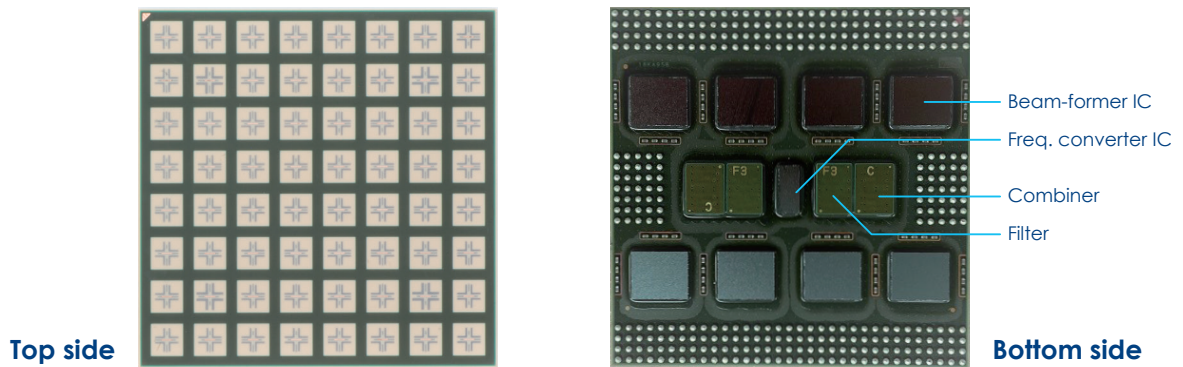


FutureAccess™

28GHz Phased Array Antenna Module (PAAM)

Overview

Fujikura PAAM operates at 24-30 GHz and supports concurrent dual-pol. It integrates RF-ICs, filter and array antenna and benefits customers with optimal TCO and reduced development time.

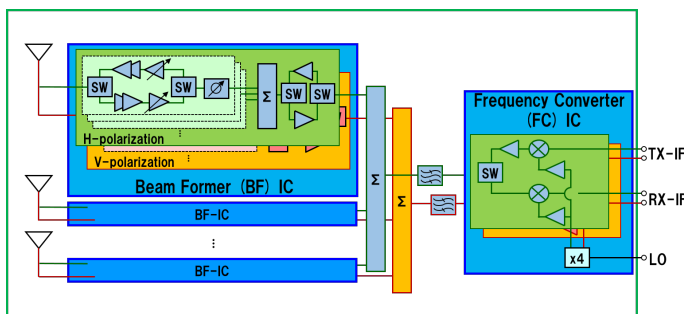


Features

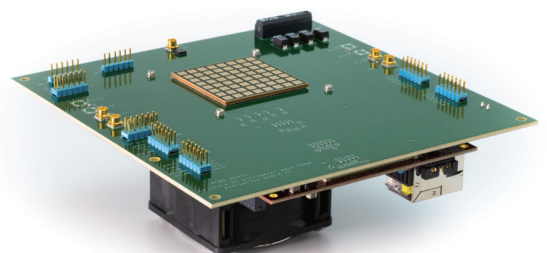
- Fast beam-switching of <math><200\text{ ns}^*1</math>, supports >30,000 beams
- High power-efficiency optimization with >20% peak PAE
- Scalable configuration with 8x8-element PAAM as a unit
- Calibration free

*1: including command transaction time

Block diagram



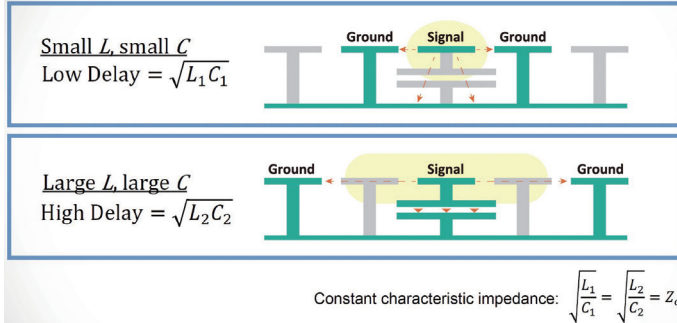
Evaluation board



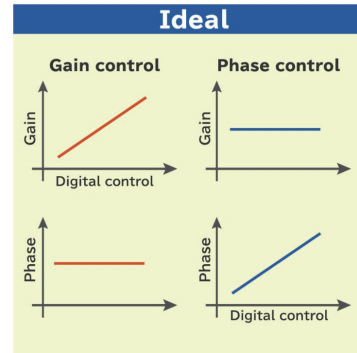
Tunable true-time-delay phase shifter

~ enabling precise and calibration-free gain/phase control ~

Phase control using tunable transmission line phase shifter



Tunable transmission line



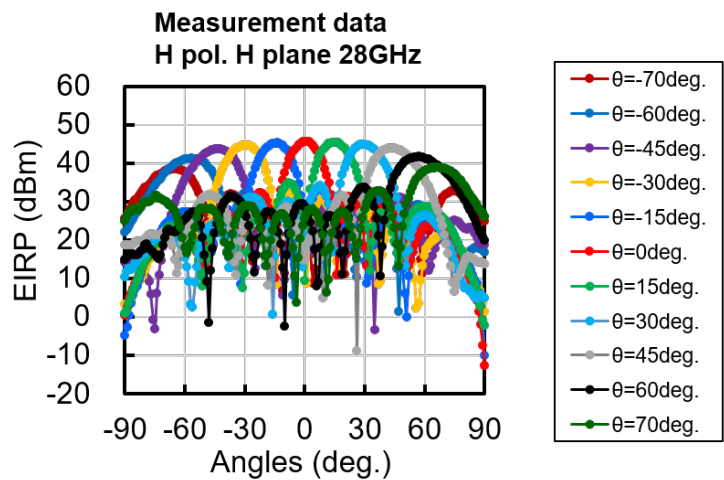
Independent gain/phase control

Specifications

Frequency	24.25 to 29.5 GHz
Band	n257/n258/n261
Polarization	Vertical, Horizontal
Beams number	2T2R
Beam-scan range	Elevation: +/-60° Azimuth: +/-60°
EIRP	56 dBm (Psat)
Beam states	>30,000
Beam switching time *1	<200 ns
Power consumption	Tx: 20 W, Rx: 7 W
Rx NF	<4 dB
Supply voltage	1.2 V/1.5 V/1.8 V/2.7 V
Operating temperature	-40 to 85 °C

*1: including command transaction time

Beamforming performance



Applications



- Fixed Wireless Access
- Mobile Wireless Access
- Backhaul
- Private 5G