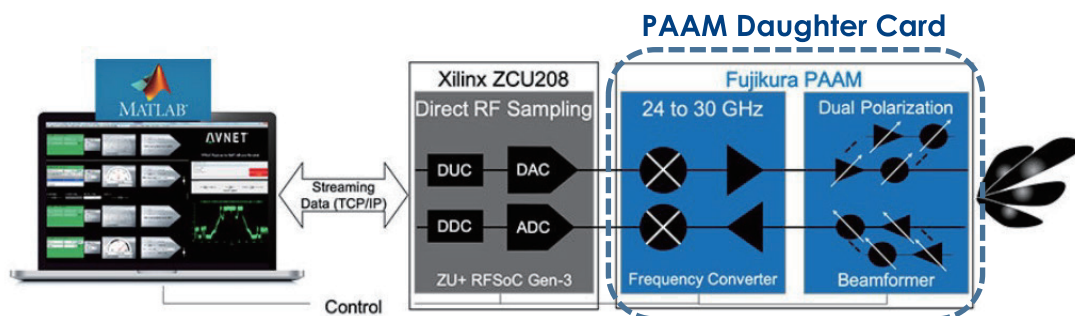


FutureAccess™

28GHz PAAM Daughter card in Development Platform for mmWave

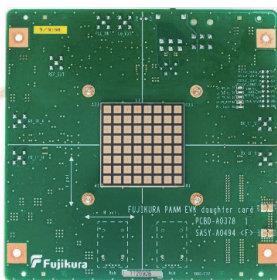
Overview

Development platform for mmWave enables customers to develop advanced 5G mmWave systems using Fujikura's PAAM and AMD's Zynq™ RFSoc Gen3, controlled by Avnet's proven RFSoc Explorer® software. This combination of leading-edge components and software will allow customers to prototype quickly with Fujikura's compact PAAM and AMD's RFSoc.

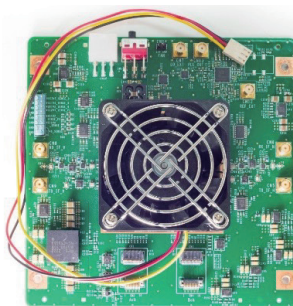


The Avnet-Fujikura PAAM Development Platform

External view



Top side



Bottom side

size: 140x140x68mm



Proposed mechanical structure of OTA test

Features

- Easy to start 5G mmWave development with RFSoc ZCU208
- OTA test with a horn antenna and opposing OTA test using 2 modules
- Controlled by RFSoc Explorer® along with ZCU208

About PAAM (Phased Array Antenna Module)

Fujikura PAAM operates at 24-30 GHz and supports concurrent dual-pol. It is a complete PAAM module with a highly integrated 8x8 antenna elements, RF-ICs and filters to realize optimal TCO.

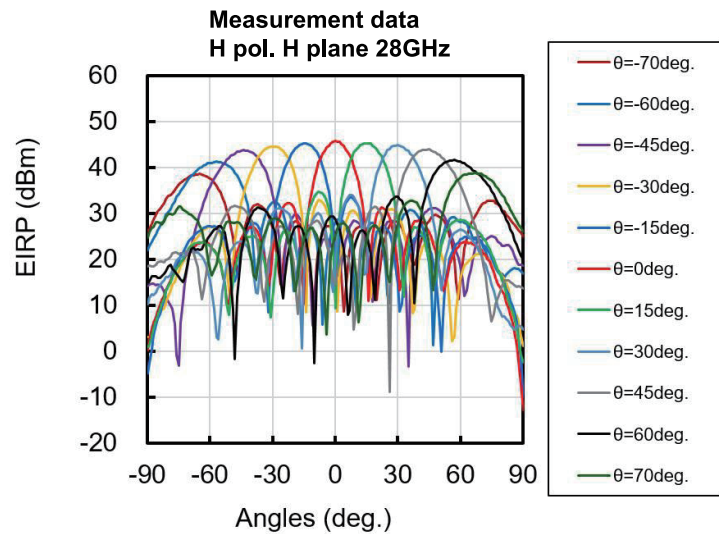


Specifications

Frequency	24.25 to 29.50 GHz
Band	n257/n258/n261
Polarization	Vertical, Horizontal
Beams number	2T2R
Beam scan	Elevation: $\pm 60^\circ$ Azimuth: $\pm 60^\circ$
EIRP	45 dBm (8dB backoff from P1dB)
Beam states	>30,000
Beam-switching times	<220 ns
Power consumption	Tx: 30 W, Rx: 16 W (PAAM only)
Rx NF	4 dB(typical)
Supply voltage	12 V
Size	14x14x6.8 cm

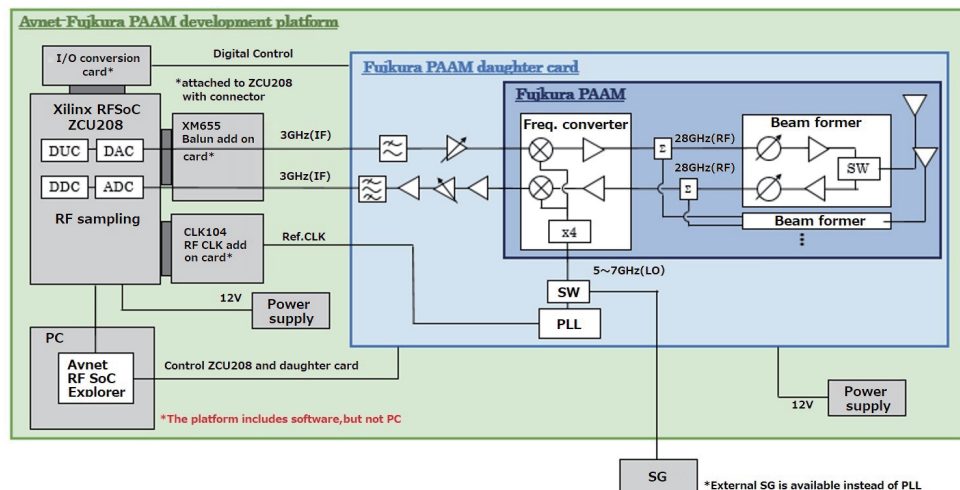
*The figures in this table are reference values, not the values for guaranteeing.

Beamforming performance



Block diagram

* This Daughter card is the blue part of the development platform



PAAM daughter card (FA28PMD88B-Fx-CB1A2-DTC) includes;

- PAAM daughter card
- Coaxial cable RF x5, digital x2
- Fixture
- I/O Conversion card
- AC adapter, code

Related parts;

- RFSoc Explorer® for PAAM development platform
- XM655 balun add on card
- RFSoc ZCU208
- CLK104 RF CLK add on card

Part Number	Frequency
FA28PMD88B-F1-CB1A2-DTC	24.25 – 26.10 GHz
FA28PMD88B-F2-CB1A2-DTC	25.65 – 27.50 GHz
FA28PMD88B-F3-CB1A2-DTC	26.50 – 28.35 GHz
FA28PMD88B-F4-CB1A2-DTC	27.65 – 29.50 GHz

Caution: All contents in this paper are subject to change without notice.