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February 28, 2022

End of Life Notification EOL23002
XRF16 Carrier Card AES-XRF16-CC-G

Products Affected: This notification affects the part number listed below only.

Part Number	Item Description
AES-XRF16-CC-G	XRF16 Carrier Card

Effective Date: February 28, 2023

Last time buy: December 31, 2023 (MOQ applies until this date)

Reason for Change:

The XRF16 Carrier Card (AES-XRF16-CC-G) has reach end-of-life status and will no longer be produced. A new revision (AES-XRF16-CC-G-D) has been introduced with enhanced performance and feature set.

Recommended Replacement:

The replacement part, listed below provides enhanced performance and feature set while maintaining compatibility with XRF16 Gen2 and Gen3 SOMs. See Details below for an overview of the changes to the carrier.

Part Number	Item Description
AES-XRF16-CC-G-D	XRF16 Carrier Card

Details
Below is a list of key improvements for AES-XRF16-CC-G-D:

1. **Expanded RF input range (10MHz to 6000MHz)**: The XRF16 Carrier Card (AES-XRF16-CC-G) includes analog front end circuitry to condition the RF input and output signals. Analog input signals pass through a transformer to

convert 50Ω single-ended signals to 100Ω differential signals for each ADC channel. The AES-XRF16-CC-G-D features a new transformer which extends the 10-3000 MHz analog input bandwidth of the previous revision to 30 to 6000MHz

Note that XRF modules themselves do not incorporate circuitry to bandwidth-limit the analog inputs or outputs to the Xilinx RFSoC data converters. Consequently, applications dependent on the limited bandwidth of the previous carrier revision may require external filters.

2. **EXT_REF input jitter improvement**: Changed EXT_REF to differential input and set as default configuration. Previously EXT_REF was single-ended only. To inject a single-ended external reference signal, the user must add an external balun to convert their single-ended signal to differential. The previous carrier revision functionality is available as a build option (MOQ applies)

3. **JTAG/UART Programming Module added**: Added Digilent JTAG/UART programming module (JTAG-SMT3-NC) for convenient prototype and debug.
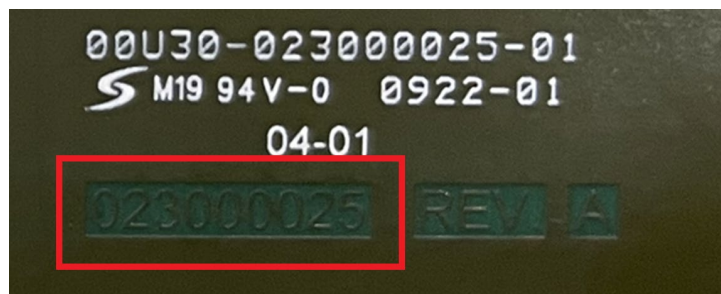
To identify the Carrier card versions please check the PCB number etched in copper:

Avnet Orderable Part Number	PCB Marking	Status
AES-XRF16-CC-G	23000008, 23000012, 23000015	End-of-Life
AES-XRF16-CC-G-D	23000025	Full Production

For further assistance contact your local Avnet sales representative or RFINFO@Avnet.com to discuss available options.