



FCC Showcase **Open RAN** Xilinx Updates

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- ▶ Who is Xilinx
- ▶ Xilinx and Open RAN
- ▶ Xilinx Solutions for O-RU: Massive MIMO Radios
- ▶ Xilinx Solutions for O-DU: Accelerator Cards

Contacts for questions:

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We Are Xilinx

Founded in 1984



★ Headquarters ● R&D and Engineering ● Sales and Support ● R&D and Sales



\$3.15B
Revenue (FY21)



~5,000
Employees Worldwide



60K+
Customers



60+
Industry Firsts



4,800+
Patents

Xilinx Open RAN Momentum

Open RAN Momentum with Operators



Xilinx is the strategic technology partner for O-RU - deployment start Q3CY21



Xilinx shortlisted on the Q4CY20 RFI for mMIMO

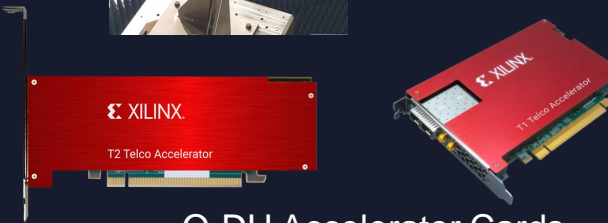


Engagement on O-DU acceleration

Xilinx O-RAN Alliance Products



5G O-RAN mMIMO Radios



Merchant Silicon + IP + Services

Xilinx Silicon 5G Open RAN Design Wins



Xilinx 5G O-RAN Massive MIMO Radio Products



Xilinx O-RAN mMIMO Radio <6GHz Platform Roadmap

Q3 2021

Q4 2021

CY 2022

Platform 3	Platform 4	Platform 4.5
<ul style="list-style-type: none"> • LTE TDD • Bands n40 • Single operator 	<ul style="list-style-type: none"> • 5G NR TDD • Band n77 • Multi-operator 	<ul style="list-style-type: none"> • 5G NR TDD • Band n77, n78, n41 • Multi-operator
<ul style="list-style-type: none"> • 32 TRX • 40 MHz OBW • 100 MHz IBW • 100W RF Power • 8 DL Layers • 4 UL Layers • O-RAN Split 7.2x 	<ul style="list-style-type: none"> • 64 TRX • 200 MHz OBW • 280 MHz IBW • 320W RF • 16 DL Layers • 8 UL Layers • O-RAN Split 7.2x 	<ul style="list-style-type: none"> • 32, 64 TRX • 200 MHz OBW • 400 MHz IBW • 200 to 400W RF • O-RAN Split 7.2x / future 7.2x extensions
<p>Merchant silicon: RFSoc ZU21DR, ZU29DR</p>	<p>Merchant silicon: Versal VC1902, VC1502 and RFSOC DFE ZU67</p>	

POC Q3 2021

US version: ready for trial Q4 2021
Europe/APAC: trial 2022

Xilinx 5G O-RAN mMIMO Radio Value Proposition



For highest capacity needs

- 64TRX, 200 MHz OBW
- 16 layers in downlink, 8 uplink



Highest output power class

- 200 to 320W RF (GaN Power Amp)
- Efficient coverage



Highest spectrum flexibility

- Up to 400 MHz Instantaneous Bandwidth (IBW)
- 200 MHz Occupied Bandwidth (OBW)



Cost-efficient deployment

- Multi-operator RAN support



Full O-RAN support

- Split 7.2x architecture
- Integration with leading DU vendors

Leading radio technology

- RFSoc DFE with extensible hard IP blocks
- DPD optimized for GaN Power Amp
- Versal AI for Beamforming



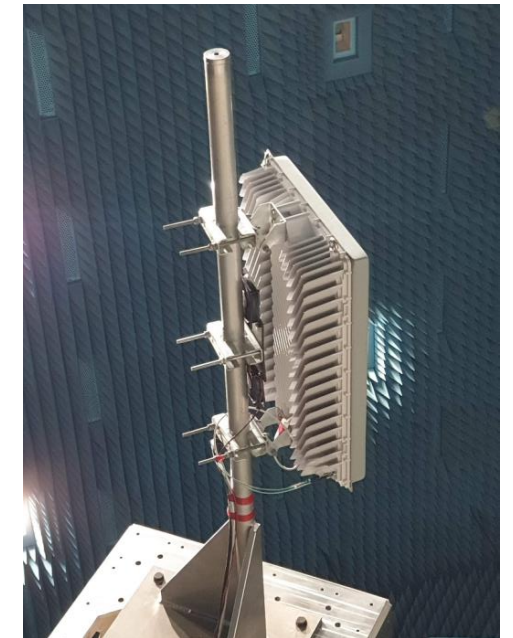
Portfolio covering all relevant 5G bands

- Bands n77, n78, n41

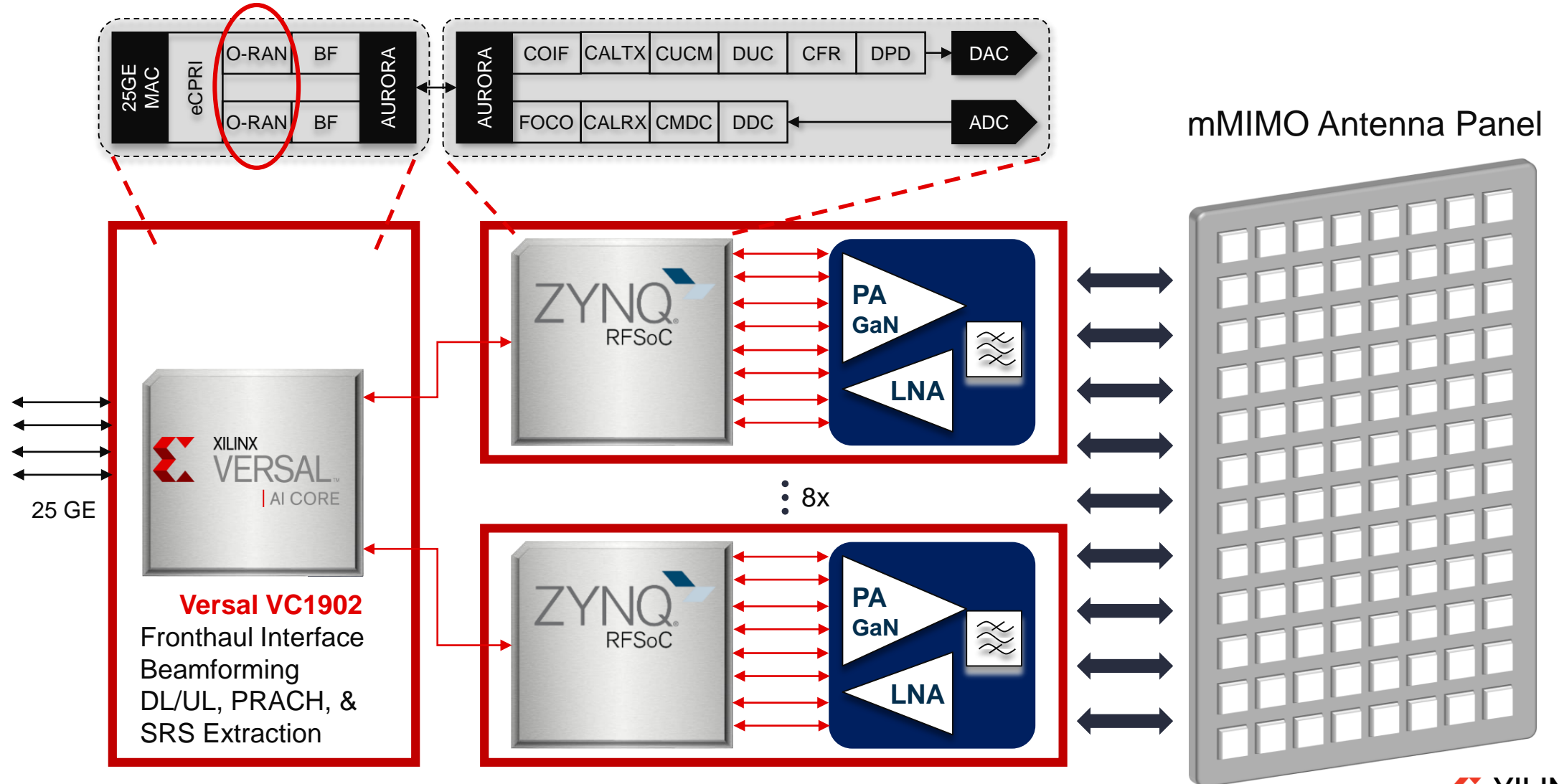
Mavenir and Xilinx Collaborate to Bring to Market Open RAN Massive MIMO Portfolio

- ▶ 5G O-RAN mMIMO radio panels (sub 6GHz)
 - 400MHz iBW, 200MHz oBW, multi-operator support
 - 320W output power, DL/UL Layers: 16/8

- ▶ Strategic Partnership with Mavenir
 - Leading and unified Open RAN massive MIMO portfolio
 - Comprehensive and integrated hardware and software solution



Xilinx O-RAN mMIMO Platform Production Silicon



Xilinx 5G O-DU Telco Accelerator Cards



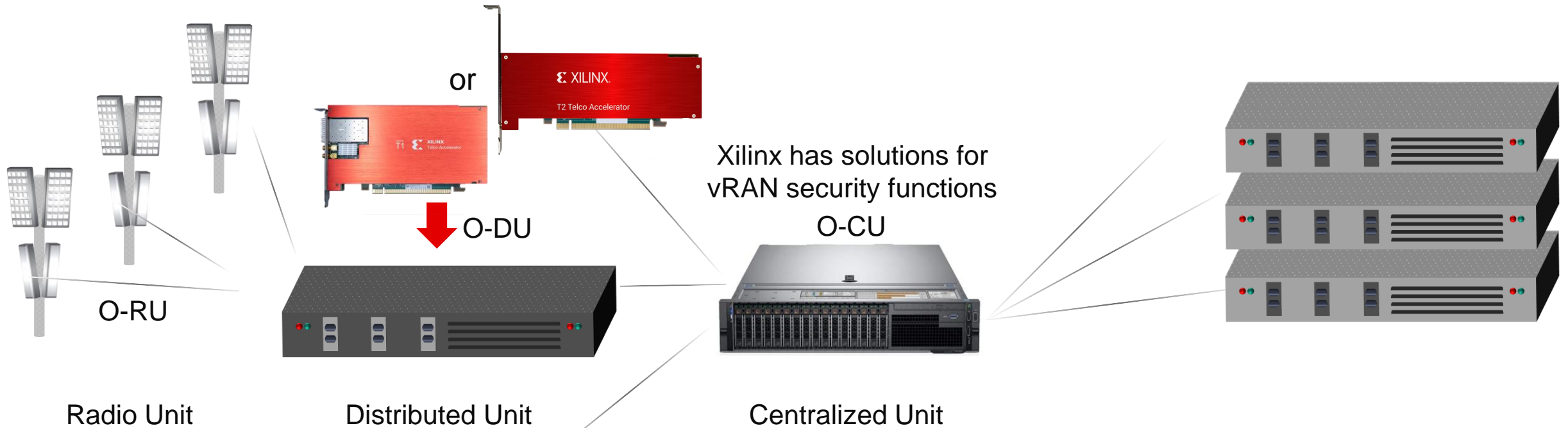
Xilinx O-DU Telco Accelerator Cards

Cell Site

Edge Cloud

Core Network

**Telco Accelerator card
(Fronthaul & L1 PHY)**



Xilinx Telco Accelerator Cards Roadmap

O-RAN Alliance plug fest 2020 participant



	T1	T2
Optimization	Fronthaul & L1	L1
Form Factor	FHHL	HHHL
PCIe	2x Gen3x8	Gen3x16 or 2x Gen4x8
Merchant silicon	ZU19P + ZU21DR	ZU48DR
FH Ports	2x SFP28 + 1588	N/A
FH BW	50 Gbps *	N/A
IEEE 1588	Yes *	No
L1 Encode	17.7 Gbps	35 Gbps
L1 Decode	8.1 Gbps *	12 Gbps

**Production
Oct 2021**

**Production
Dec 2021**



Thank You

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