

Leap[®] On-Board Transceiver (OBT)

Product Presentation

Amphenol Information Communications
and Commercial Products

Active Optics
 **Products**

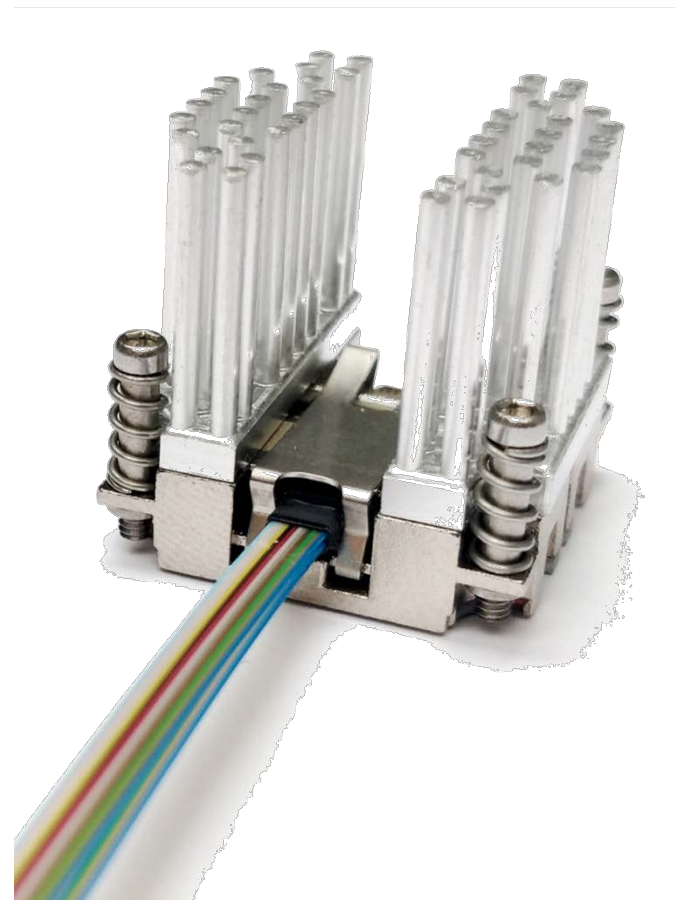
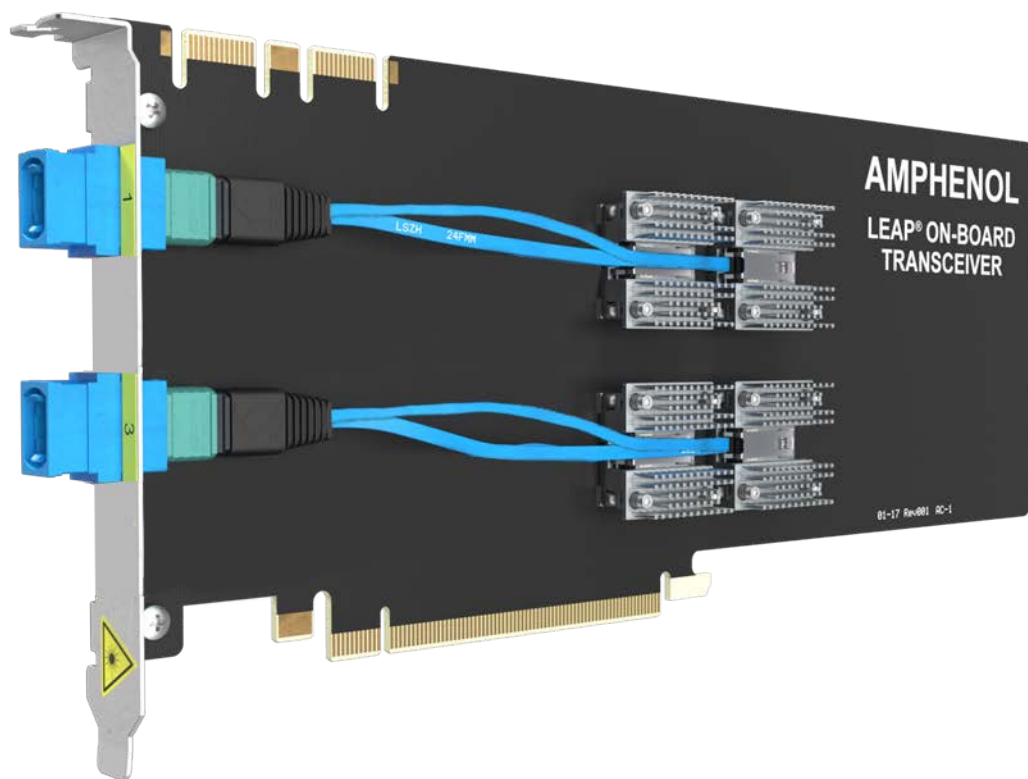
Amphenol ICC

Leap[®] On-Board Transceiver

300Gb/s Leap[®] OBT

**Active Optics
Products**

- Solves Faceplate Density and Interconnect Challenges
- Networking and HPC applications
- 100m reach



Leap[®] On-Board Transceiver

Embedded Optical Transceiver System



- 300Gb/s Optical Module
- 225 Pin Electrical Connector
- Customizable 24 Fiber MT Optical Cable
- Faceplate Adapter



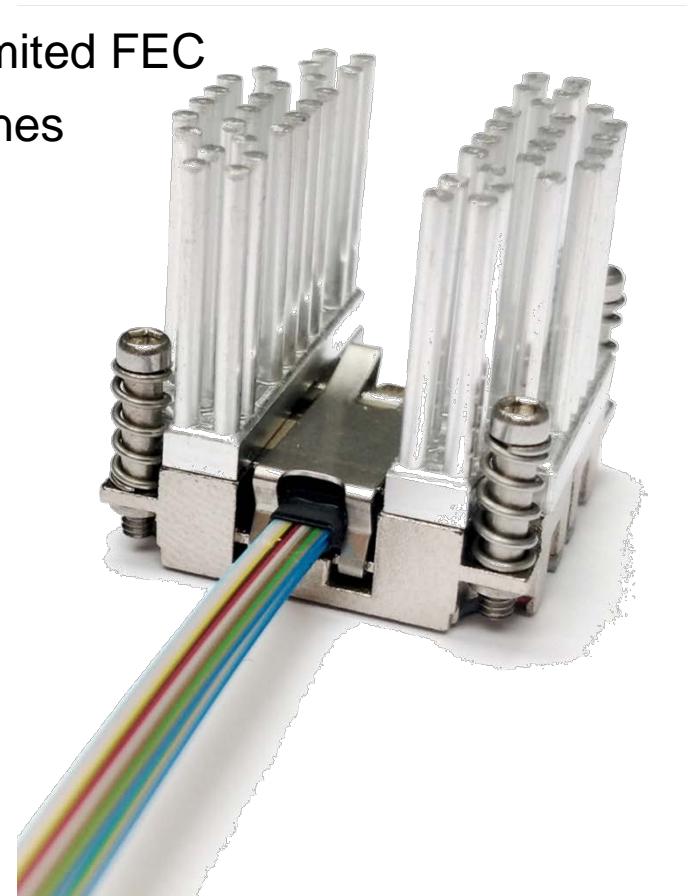
1.2TB PCIe Card Example: Four 300Gb/s optical interfaces with MPO adapter

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300Gb/s Leap[®] OBT

**Active Optics
Products**

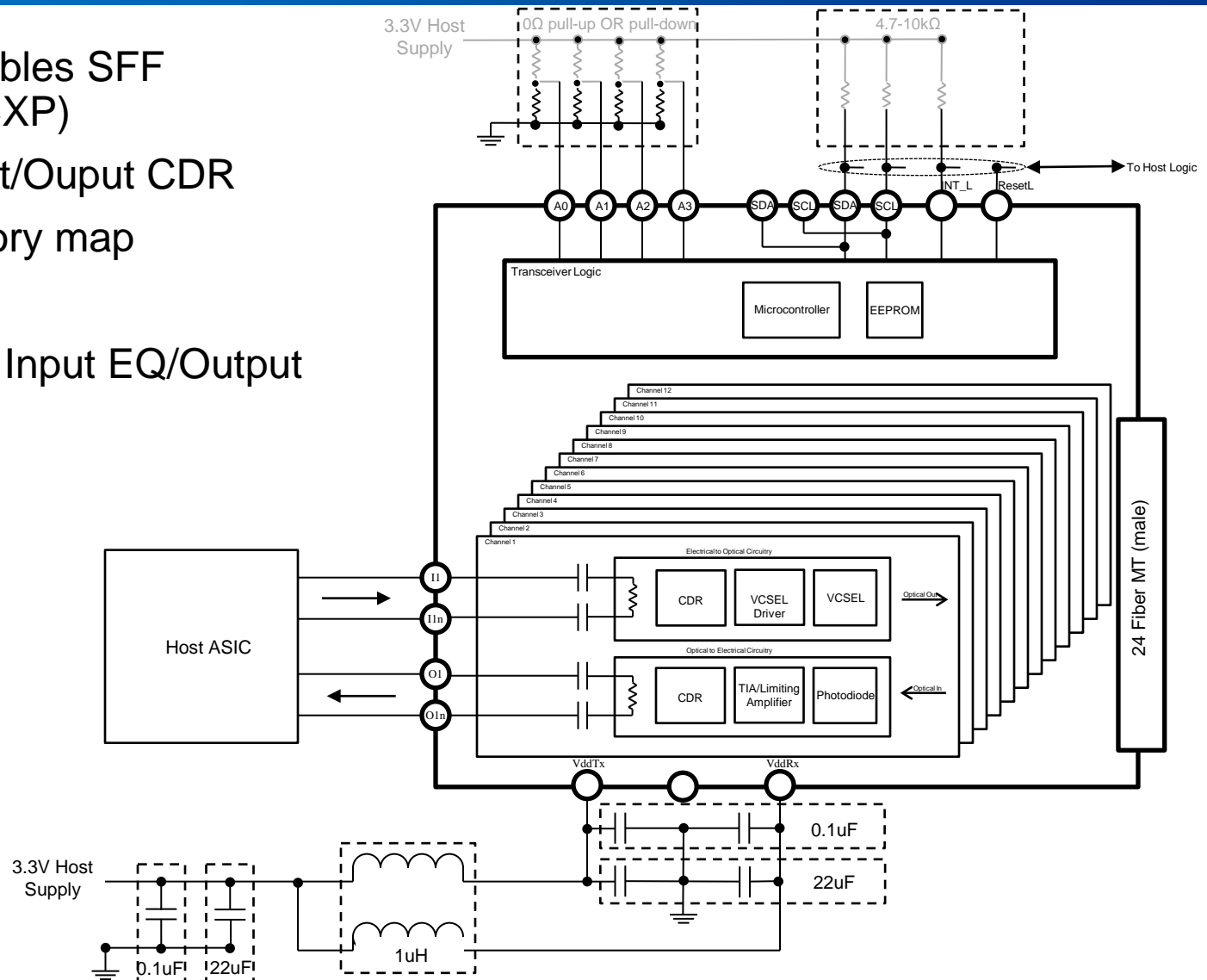
- 12x25Gb/s full duplex (Tx + Rx)
- Low power – 5W typical
- 100m Reach with 850nm multimode optics
- Enhanced Bit Error Rate (1e-12) requires no or limited FEC
- CDRs and DC Blocking caps on all high speed lanes
- Accepts standard MT – Separable Interface
- Air cooled – heat sink can be customized



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OBT Block Diagram

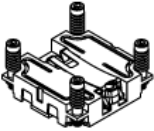
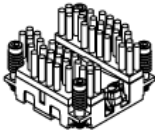
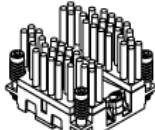
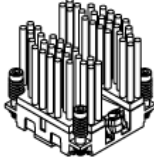
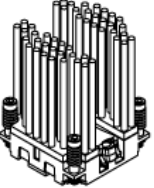
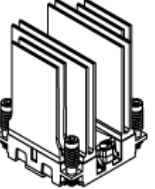
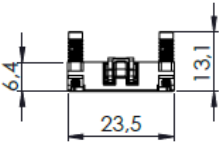
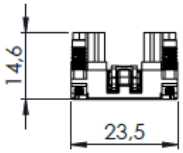
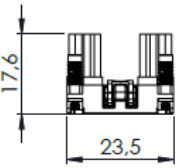
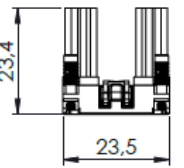
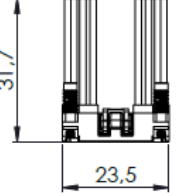
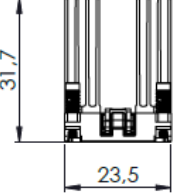
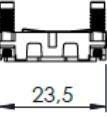
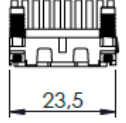
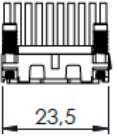
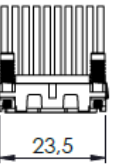
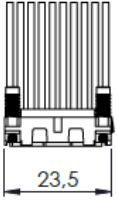
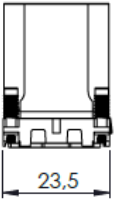
- Closely Resembles SFF (i.e. QSFP28/CXP)
- Integrated Input/Output CDR
- CXP-like memory map
- AC Coupled IO
- Programmable Input EQ/Output Emp.



- Various heat sinks for different system environments
- Selection based on:
 - Space available
 - Air flow direction
 - System height
- Typically air cooled
- Water cooled type available

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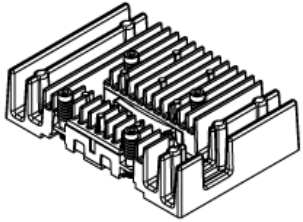
OBT Heat Sinks

<p>10124588-2Y0</p>  <p>no heatsink</p>	<p>10124588-2Y1</p>  <p>low heatsink</p>	<p>10124588-2Y2</p>  <p>high heatsink</p>	<p>10124588-2Y4</p>  <p>extended heatsink</p>	<p>10124588-2Y6</p>  <p>super extended heatsink</p>	<p>10124588-2Y7</p>  <p>fin heatsink</p>
					
					

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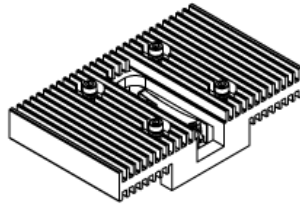
OBT Heat Sinks

10124588-2Y5



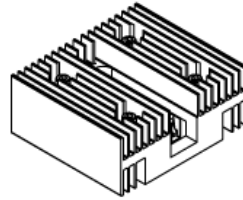
flat

10124588-2Y8



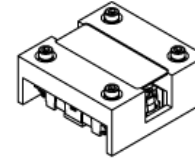
wings

10124588-2Y9



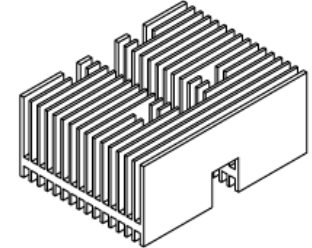
block

10124588-2YB

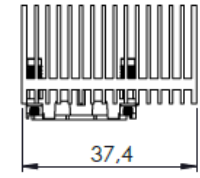
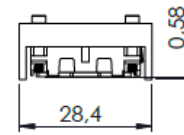
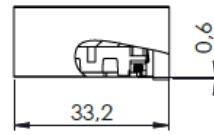
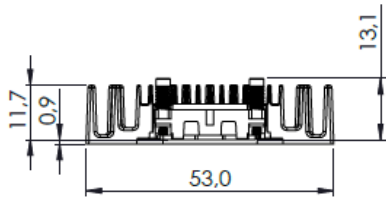
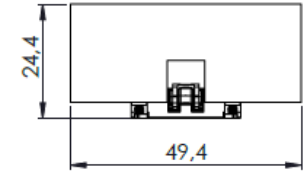
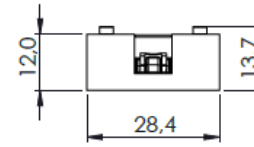
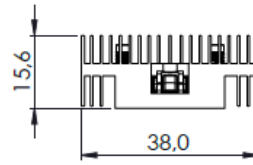
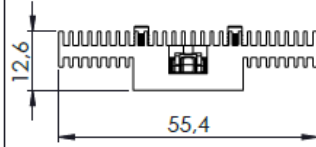
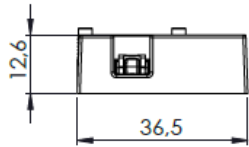


flat heatsink adapter

10124588-2YC



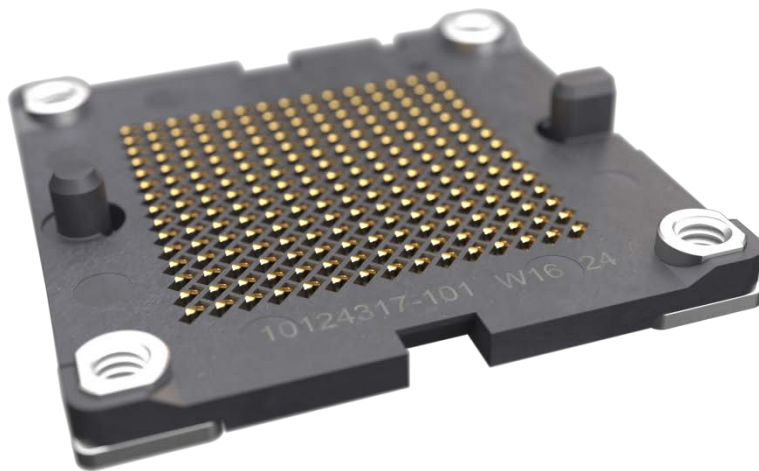
cubic



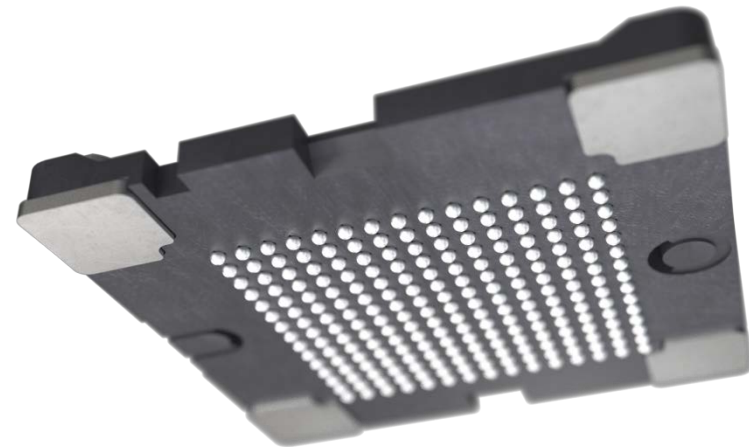
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Electrical Socket

- BGA/LGA Socket
- No through holes required
- <0.2dB IL at 12.5GHz
- Alignment features



Top - LGA Springs



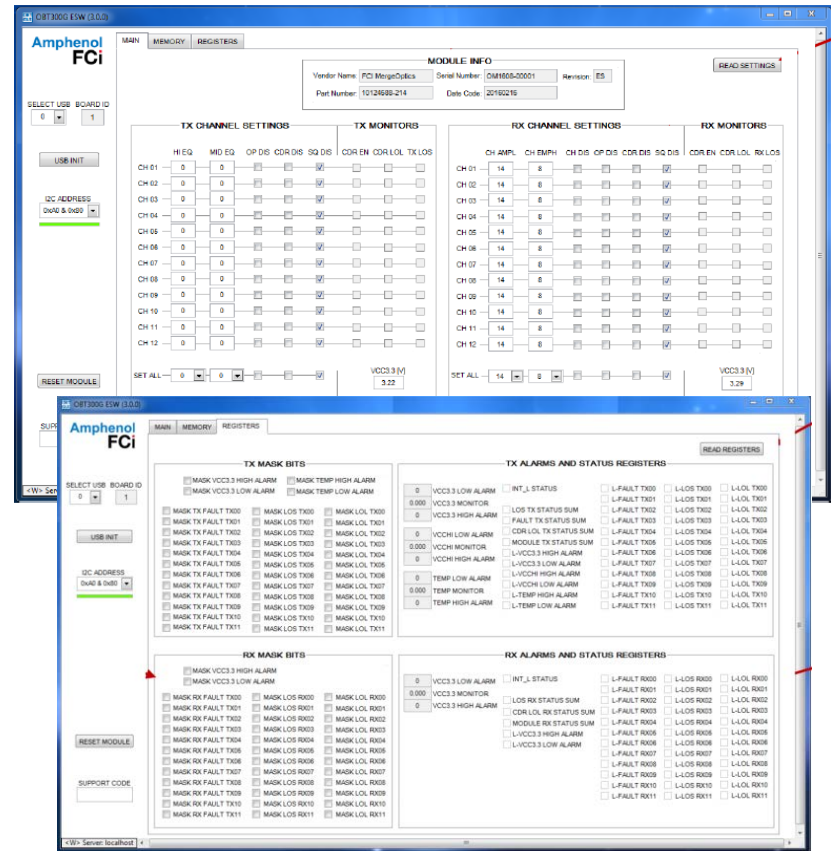
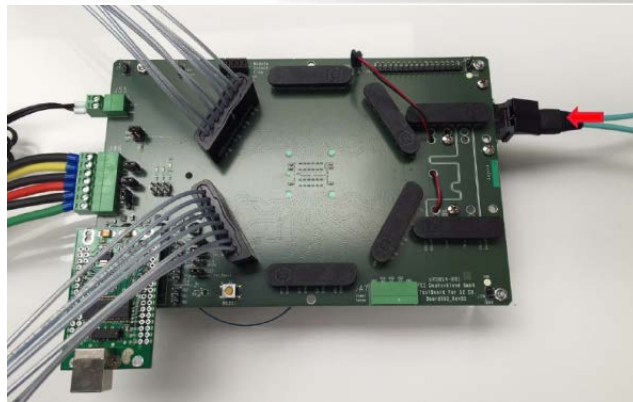
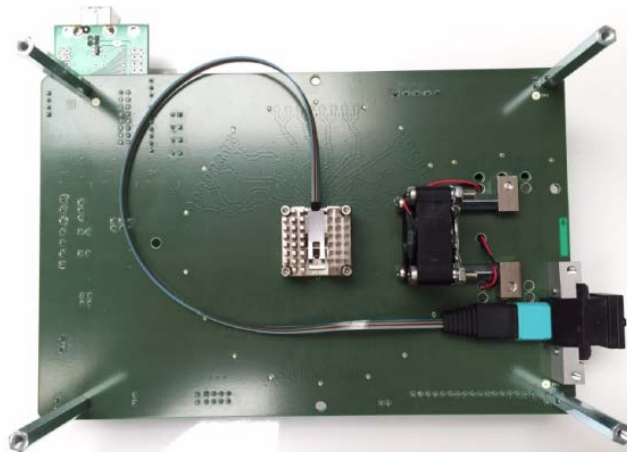
Bottom - BGA Solder

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OBT Evaluation Support



- Evaluation Board w/GUI
- FMC+ Card
 - Compatible with FPGA demo board



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Thank You!