

Next Gen PMD CFP MSA Baseline Specifications

CFP MSA Member Companies:

Avago Technologies

Finisar Corp.

Fujitsu Optical Components

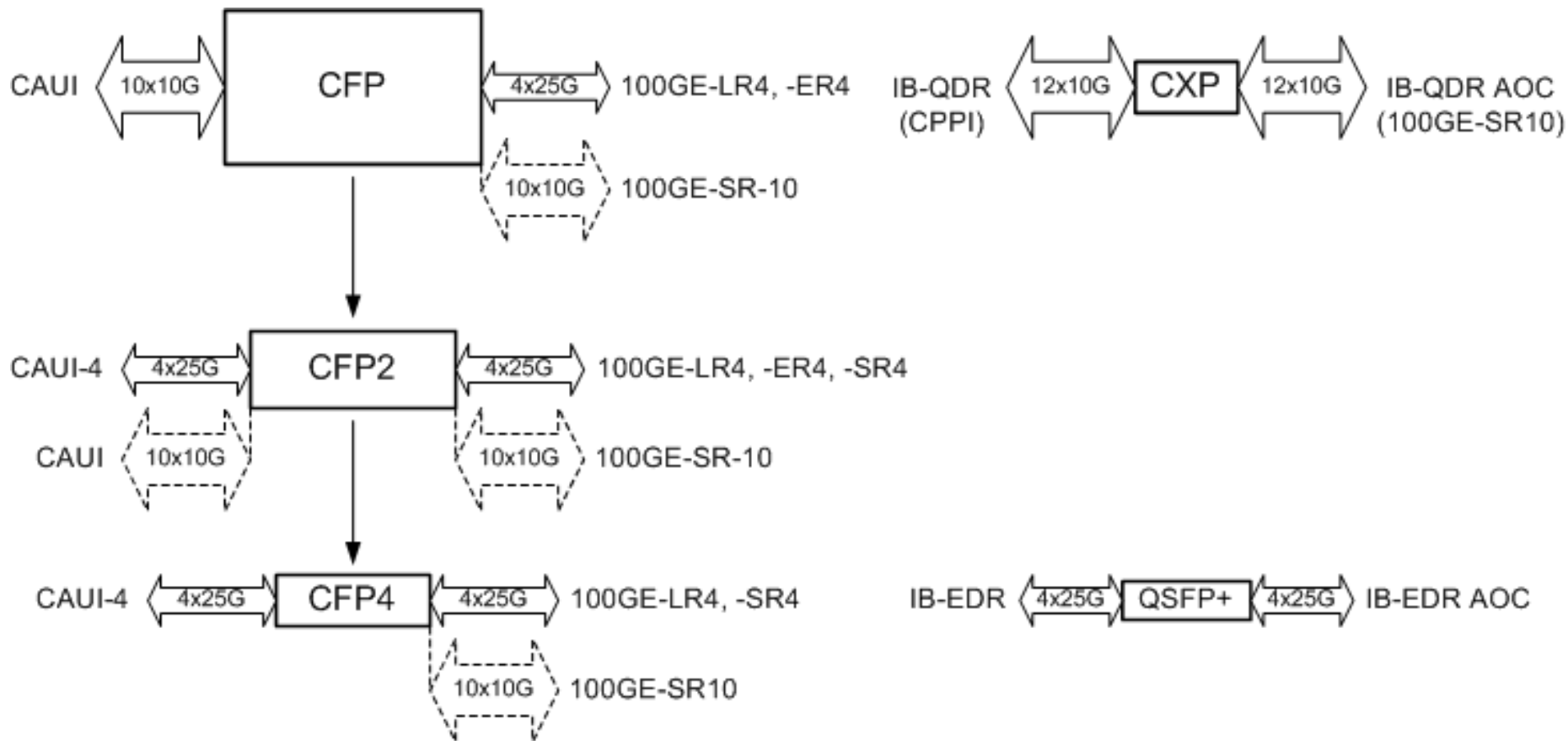
Opnext, Inc.

Sumitomo Electric Industries

9 December 2011

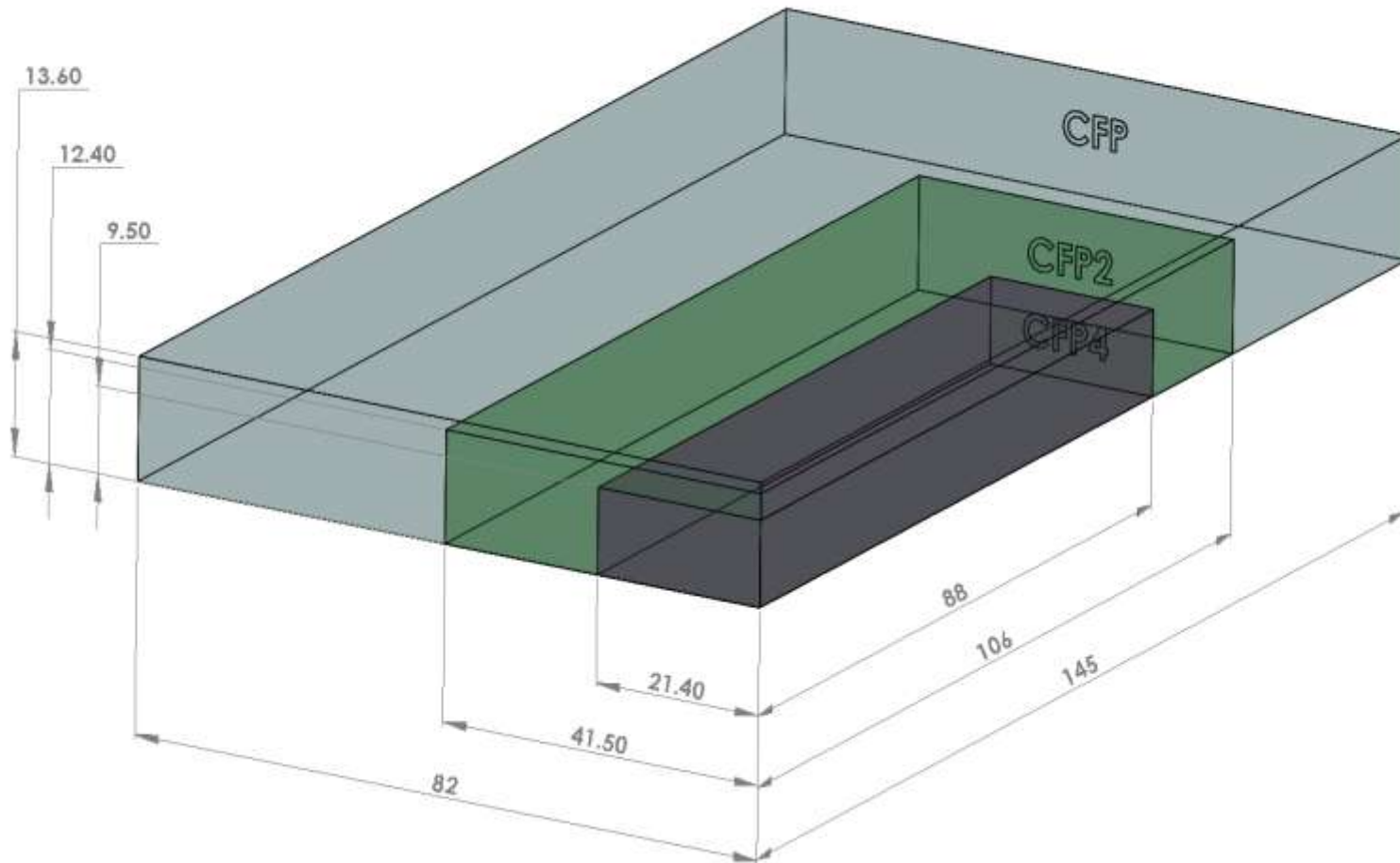


100G Modules

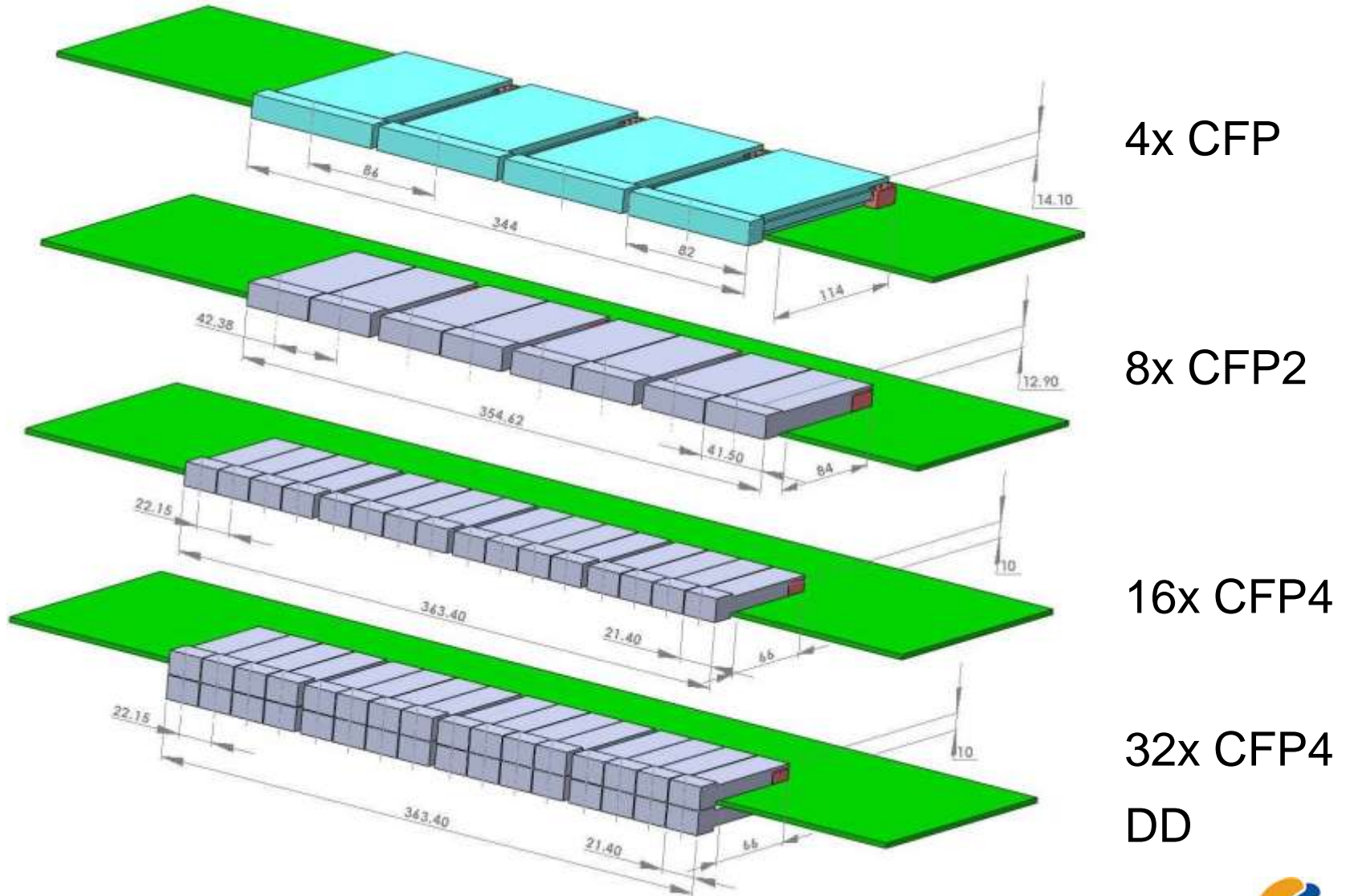


- ❑ Module shapes all drawn approximately to same scale

CFP 100G Module Relative Sizes



CFP 100G Module Densities



Functional Specifications

Category	CFP	CFP2	CFP4	QSFP+
Applications	Ethernet, Telecom	Ethernet, Telecom	Ethernet, Telecom	Ethernet, Telecom
Host rates	10G, 10.3G, 11.2G	25.8G, 28G	25.8G, 28G	25.8G, 28G
Firmware MIS	CFP MSA MDIO	CFP MSA MDIO	CFP MSA MDIO	I2C
Hardware MIS	CFP MSA HW I/O	CFP MSA HW I/O	CFP MSA HW I/O	SFF HW I/O
Total pins	148	104	56	38
Voltages (V)	3.3	3.3	3.3	3.3, VccTx, VccRx
TX + RX (Diff. Pairs)	10+10, 11+11, 12+12	4+4, 8+8, 10+10	4+4	4+4
REFCLK (Diff. Pairs)	1	1	1	0
Internal RX REF oscillator	Yes	Optional	Optional	No
Monitor Clocks (Diff. Pairs)	2	2	1	0
Mechanism	Screws	Latch	Latch	Latch
Connector	10G CFP MSA	25G CFP MSA	25G CFP MSA	25G QSFP
Heat Sink	riding (flat top)	riding (flat top)	riding (flat top)	riding (flat top)
Optical Connectors	SC/LC /MTP12/24	LC/MTP12/24	LC/MTP12/24	LC/MTP12/24

Mechanical and Thermal Specifications

Category	CFP				CFP2				CFP4				QSFP+			
Ports in 364mm faceplate	4				8				16				18			
module width (mm)	82 (76 main top)				41.5				21.4				18.3			
module length (mm)	145				106				88				74			
module main body height (mm)	13.6				12.4				9.5				8.5			
module PCB thickness (mm)	1.6				1				1				1			
module top side space (mm)	7				7				4.1				4.1			
module bottom side space (mm)	3				2.4				2.4				1.4			
host ganged cage pitch (mm)	86				42.4				22.2				20			
host depth (mm)	114				84				66				52			
host height (mm)	14.1				12.9				10				10			
Connector cntr. to host PCB (mm)	5.3				4.4				4.4				3.4			
Power classes (W)	8.0	16	24	32	3.0	6.0	9.0	12	1.5	3.0	4.5	6.0	1.5	2.0	2.5	3.5
Power densities (W/inch ²)	0.6	1.1	1.7	2.2	0.6	1.1	1.7	2.2	0.7	1.4	2.1	2.7	1.2	1.5	1.9	2.7