

Digital Coherent Components

NTT Innovative Devices provides digital coherent DSPs ("ExaSPEED" series) and electrical-optical integrated device for 100Gbps to 1.2Tbps.

A Blade Design Suite (Software Development Kit and compact evaluation board with its reference design files) will be provided with the DSP.

Coming Soon

ExaSPEED 800

800G low power coherent DSP of 6th generation CMOS ExaSPEED lineup for long haul / metro (ZR+) to short haul (ZR) applications.

- Support OIF 800ZR, OpenZR+ MSA and OpenROADM MSA with Standard PCS*
- Support all of client capacity from 100 to 800G/32 to 131Gbaud
- Suite for QSFP-DD and OSFP

* Probabilistic Constellation Shaping

ExaSPEED GAIA/GAIAex

1.2Tbps high performance coherent DSP of 5th generation 5-nm CMOS ExaSPEED lineup provides 200Gbps - 1.2Tbps per lambda with up to 140Gbaud. New introducing another package DSP, ExaSPEED GAIAex, equipped with an EXposed pad that can more effectively utilize the wide bandwidth characteristics of optical devices such as UHB-CDM.

ExaSPEED 400/400-R

400G low power coherent DSP of 4th generation 7-nm CMOS ExaSPEED lineup for long haul (LH)/metro (ZR+) to short haul (ZR) applications.

- ExaSPEED 400 supports OIF 400ZR, OpenZR+ MSA and OpenROADM MSA.
- ExaSPEED 400-R provides 20% less power consumption than its upper compatible ExaSPEED400, and supports OIF 400ZR and OpenZR+ MSA for QSFP-DD.



7-nm CMOS coherent DSP with the lowest power consumption in ExaSPEED series.



ExaSPEED 800



ExaSPEED GAIAex



ExaSPEED GAIA



ExaSPEED 400/400-R

Coming Soon

ExaLIGHT800

800G coherent co-package device implementing both DSP and COSA in a single solder reflow-able optical BGA package. Its small footprint offers an additional room to integrate the optical amplifier into coherent pluggable modules.

- Applications: OIF 800ZR, OpenZR+ MSA and OpenROADM MSA with Standard PCS*
- EO/OE bandwidth covers all the DSP operation modes.
- Applicable to QSFP-DD, OSFP, and CFP2-DCO.

* Probabilistic Constellation Shaping

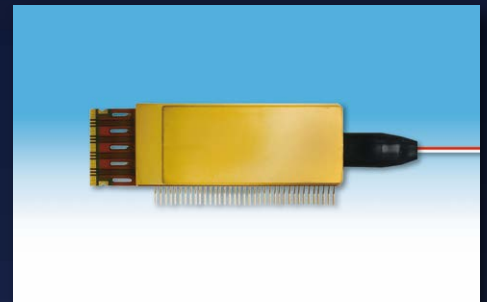


UHB-CDM (Ultra High Bandwidth Coherent Driver Modulator) : Class 80

InP-based IQ modulator co-packaged with a quad linear driver supports 200Gbps and 1.2Tbps systems for long-haul and metro applications with a baud rate of 140 Gbaud.

(Class 80)

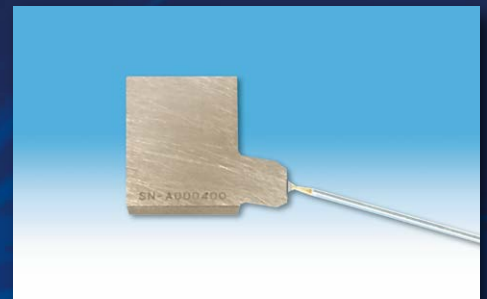
The OIF-standard compliant package is suitable for high performance line cards.



COSA 2.0 (Coherent Optical Sub-Assembly)

Silicon photonics based Coherent Optical Sub-Assembly (COSA) for 400G applications: OIF 400ZR, OpenZR+ MSA and Open ROADM MSA.

Non-hermetic, TEC-free, small and thin (13.5 x 10.5 x 2.2 mm) with solder reflow-able optical BGA package.



- Our company may change specifications and the appearance for improvement that are incidental to the product without providing prior notice. At the purchase and the use of the product, please confirm the latest information.
- Please use our products in accordance with the instructions provided in the manual, user's guide or specifications attached.
- Exporting our products or technologies may be subject to the Foreign Exchange and Foreign Trade Law of Japan and export control acts and regulations of other related countries.

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