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HENGTONG ROCKLEY TECHNOLOGY CO., LTD.

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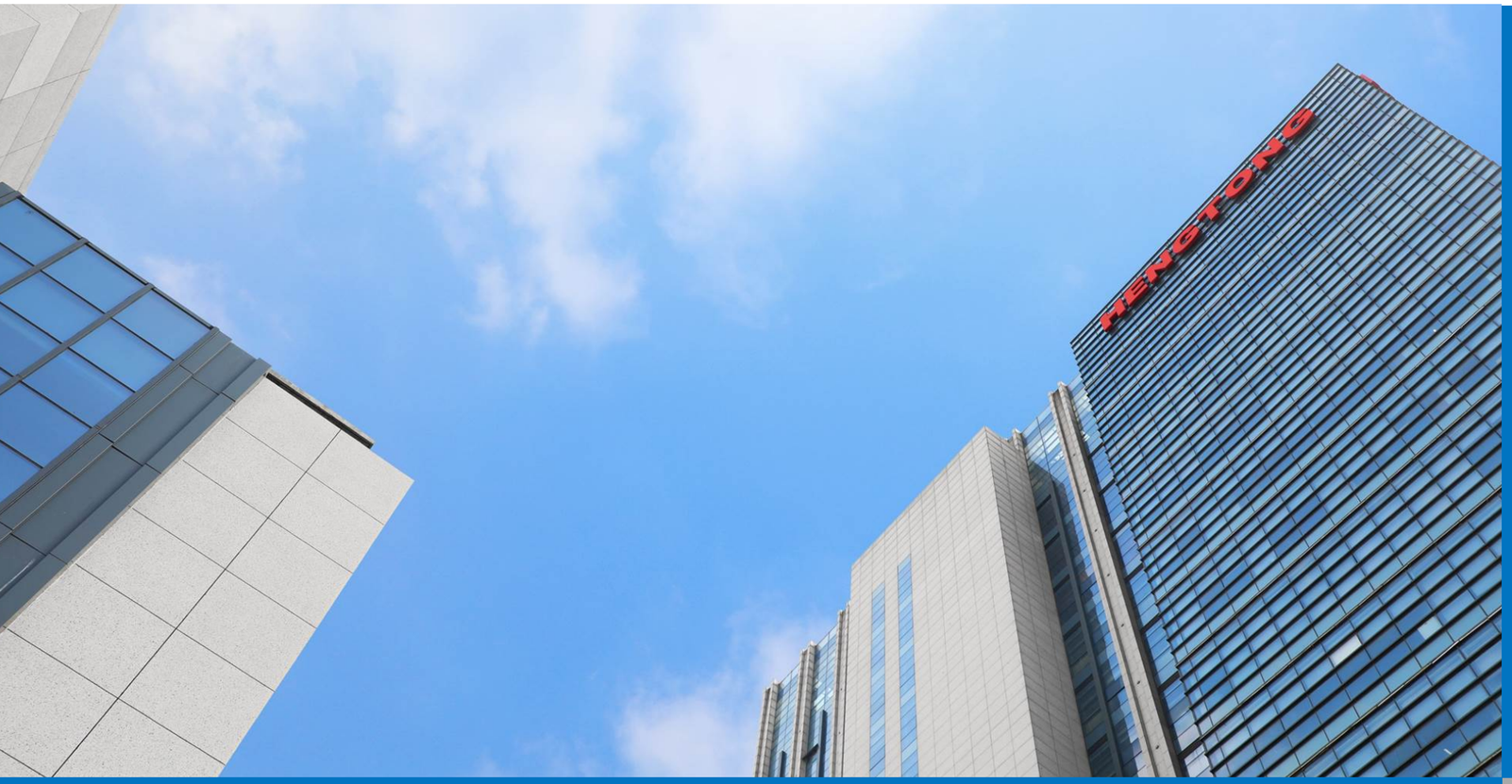
HENGTONG ROCKLEY TECHNOLOGY CO., LTD.

OPTICAL TRANSCEIVER PRODUCT PORTFOLIO



Company profile

Hengtong Rockley Technology Co., Ltd. is a joint venture company jointly established by Hengtong Optic-Electric Co.,Ltd (Stock Code: 600487) and Rockley photonics Inc. The company is located in No.88 Hengtong Road, Wujiang, Suzhou. It is a high-tech company dedicated to research and development of silicon optical chips and optical transceivers. Hengtong Rockley is positioned in the design and manufacture of high-end optical transceivers. Due to adoption of the Co-Packaged Optics, which is different from the traditional scheme. The device is integrated on silicon chip, which greatly reduces the number of separation devicesof optical transceiver, thereby reducing the complexity and assembly difficulty of optical components and optical transceivers. In addition, Hengtong Rockley is committed to the design and manufacture of silicon photonic chips, striving to realize the vertical integration of the entire industrial chain from the design, packaging and testing of silicon optical chips to optical transceivers, so as to serve the society through improving the competitiveness of products.

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Optical Transceiver Product Application

Wireless

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Datacenter

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- SFP28 TRx
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- SFP+ TRx
- AOC
- DAC/AEC

Optical Transceiver R&D

- Silicon Optical Chip Design
- Silicon Optical Chip Process Design
- Optics Design
- Thermal Design
- Optical/Electric Chip Testing
- RF Design
- Fully-automatic Wire bonding/Die bonding
- Fully-automatic Coupling, Test System

Quality system

In August 2019, Hengtong Rockley passed the ISO9001:2015 quality management system certification, and in September 2020, it passed the ISO14001: 2015 environmental management system certification, marking that the company has a complete quality management system that can implement the whole process quality management to ensure that products and services meet customer requirements.

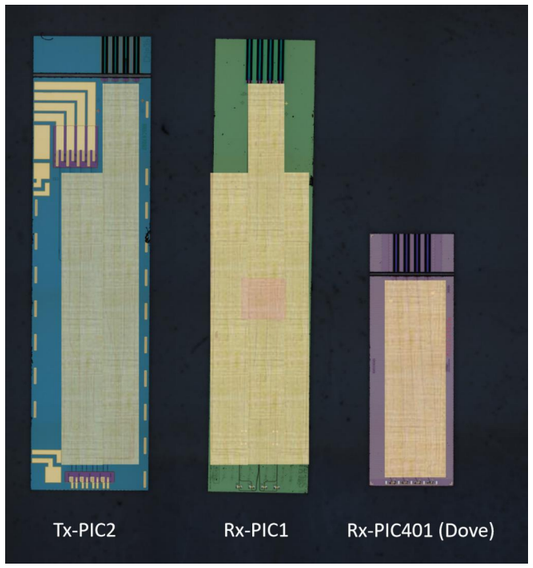
Silicon photonic integrated circuits chip

Chip Design

- Passive silicon photonic device design (waveguide, splitter, MUX/DUMEX)
- Silicon-based monolithically-integrated high-speed photodetector design
- Silicon-based monolithically-integrated electro-absorption modulator, Mach-Zehnder modulator design
- 100G/400G silicon photonic integrated circuits design
- Photonic integrated circuits layout and process flow design

Silicon optical technology advantages

Hengtong Rockley's Tx-PIC and Rx-PIC integrated silicon photonic chips are based on 3um thick silicon-on-insulator (SOI) wafer, this unique technique has many advantages such as large fabrication tolerance, polarization-insensitivity, easiness for mass production, etc. The 3dB bandwidth of the monolithically integrated photodetctor and electro-absorption modulator can exceed more than 40GHz, which is suitable for the applications of 4x100G data transmission in O-band and C-band.



400G/800G QSFP-DD

Application

400G/800G Ethernet, data center and cloud network

Feature

·QSFP-DD MSA，IEEE 802.3bs
·DDM
·3.3V Single power
·RoHS Compliant
·Operating temperature range：0~70°C

400G DR4

800G DR8

Product	Data Rate	Form Factor	Connector	Wavelength (nm)	Reach (km)	Transmitter	Receiver
400G AOC	8×50G	QSFP-DD	AOC	850nm	1-100m	VCSEL	PIN
400G-SR8	8×50G	QSFP-DD	MPO	850nm	100m	VCSEL	PIN
400G-DR4	4×100G	QSFP-DD	MPO	1310nm	500m	SiP	SiP
	4×100G	QSFP-DD	MPO	1310nm	500m	EML	PIN
400G-FR4	4×100G	QSFP-DD	LC	CWDM	2km	EML	PIN
800G-DR8	8×100G	QSFP-DD800	MPO	1310nm	500m	EML	PIN

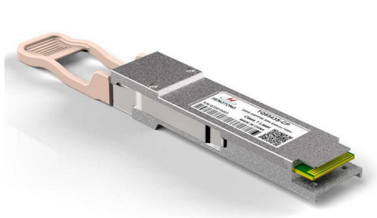
200G QSFP56

Application

200G Ethernet, data center and cloud network

Feature

·QSFP56 MSA, IEEE 802.3bs, IEEE 802.3cd
·CMIS 4.0 or SFF-8636
·DDM
·3.3V Single power
·RoHS compliant
·Operating temperature range：0~70°C



200G SR4

200G FR4

Product	Data Rate	Form Factor	Connector	Wavelength (nm)	Reach (km)	Transmitter	Receiver
200G AOC	4×50G	QSFP56	AOC	850nm	1-100m	VCSEL	PIN
200G-SR4	4×50G	QSFP56	MPO	850nm	100m	VCSEL	PIN
200G-FR4	4×50G	QSFP56	LC	CWDM	2km	DML	PIN
200G-LR4	4×50G	QSFP56	LC	LWDM	10km	DML	PIN
200G-ER4	4×50G	QSFP-DD	LC	LWDM	40km	EML	APD

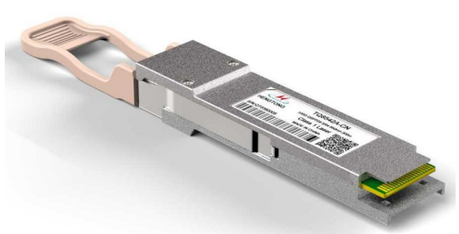
100G QSFP28

Application

100G data center internal network, data center interconnection, metropolitan area network, and 5G wireless network

Feature

- IEEE802.3bs, SFF-8636
- DDM
- 3.3V Single power
- RoHS Compliant
- Operating temperature range：0~70°C



Product	Data Rate	Form Factor	Connector	Wavelength (nm)	Reach (km)	Transmitter	Receiver
100G AOC	4×25G	QSFP28	AOC	850nm	1-100m	VCSEL	PIN
100G-SR4	4×25G	QSFP28	MPO	850nm	100m	VCSEL	PIN
100G-CWDM4	4×25G	QSFP28	LC	CWDM	2km	DFB	PIN
100G-LR4	4×25G	QSFP28	LC	LWDM	10km	EML/DFB	PIN
100G-ER4 lite	4×25G	QSFP28	LC	LWDM	30/40km	EML	APD
100G-ER4	4×25G	QSFP28	LC	LWDM	40km	EML	PD+SOA

40G QSFP+

Application

Data center, campus network, metropolitan area network and others

Feature

- IEEE802.3bm, SFF-8636
- DDM
- 3.3V Single power
- RoHS Compliant
- Operating temperature range：0~70°C

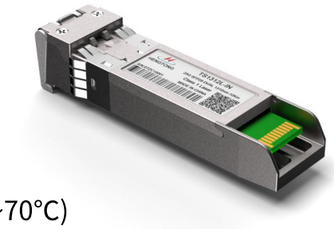
Product	Data Rate	Form Factor	Connector	Wavelength (nm)	Reach (km)	Transmitter	Receiver
40G-SR4	4×10G	QSFP+	MPO	850nm	100m	VCSEL	PIN
40G-eSR4	4×10G	QSFP+	MPO	850nm	300m	VCSEL	PIN
40G-CWDM4	4×10G	QSFP+	LC	CWDM	2km	DFB	PIN
40G-PSM4	4×10G	QSFP+	MPO	1310nm	2km	FP	PIN
40G-LR4	4×10G	QSFP+	LC	CWDM	10km	DFB	PIN
40G-ER4	4×10G	QSFP+	LC	CWDM	40km	DFB	APD

25G SFP28

Application

5G front-haul network, data center, 25G Ethernet, fibre channel and others

Feature



·IEEE802.3by, SFP28 MSA, SFF-8472
·DDM
·3.3V Single power
·RoHS Compliant
·Operating temperature range：-40~85°C(25G-SR: 0~70°C)

Product	Data Rate	Form Factor	Connector	Wavelength(nm)	Reach (km)	Transmitter	Receiver
25G-SR	25G	SFP28	LC	850nm	100m	VCSEL	PIN
25G-LR	25G	SFP28	LC	1310nm	10km	DFB	PIN
25G BIDI	25G	SFP28	LC	1270nm/1330nm	10km	DFB	PIN
	25G	SFP28	LC	1270nm/1310nm	10km/30km	DFB	PIN
25G-LR CWDM	25G	SFP28	LC	1271~1371nm	10km	DFB	PIN
25G-LR MWDM	25G	SFP28	LC	1267.5~1374.5nm	10km	DFB	PIN/APD

AEC/DAC

Application

Ethernet, data center and HPC

Feature

·SFP28 MSA, QSFP56 MSA, QSFP-DD MSA, OSFP MSA and other standards according to different rate
·DDM
·3.3V Single power
·RoHS Compliant
·Operating temperature range：0~70°C

Product	Data Rate	Form Factor	Connector	Wavelength(nm)	Reach (km)	Transmitter	Receiver
25G DAC	25G	SFP28	/	/	1m/2m/3m/5m	/	/
25G AEC	25G	SFP28	/	/	7m/10m	/	/
200G AEC	4×50G	QSFP56	/	/	3m/5m/7m	/	/
400G AEC	8×50G	QSFP-DD/OSFP	/	/	3m/5m/7m	/	/

10G SFP+

Application

10 G Ethernet, Metropolitan area network, access network, wireless, SDH / SONEET communication equipment, etc

Feature

- IEEE802.3ae, 10GBASE-ER、10GBASE-LR/LW
- DDM
- 3.3V Single power
- RoHS Compliant
- Operating temperature range：0~70°C or -40~85°C

Product	Data Rate	Form Factor	Connector	Wavelength (nm)	Reach (km)	Transmitter	Receiver
10G-SR	10G	SFP+	LC	850nm	300m	VCSEL	PIN
10G-LR	10G	SFP+	LC	1310nm	10km	DFB	PIN
	10G	SFP+	LC	1310nm	20km	DFB	PIN
10G-ER	10G	SFP+	LC	1550nm	40km	EML	PIN
10G-ZR	10G	SFP+	LC	1550nm	80km	EML	APD

10G SFP+ BIDI

Application

10 GEthernet, Metropolitan area network, access network, wireless, SDH / SONEET communication equipment, etc

Feature

- IEEE802.3ae, 10GBASE-ER、10GBASE-LR/LW
- DDM
- 3.3V Single power
- RoHS Compliant
- Operating temperature range：0~70°C or -40~85°C

Product	Data Rate	Form Factor	Connector	Wavelength(nm)	Reach (km)	Transmitter	Receiver
10G BIDI	10G	SFP+	LC	1270nm/1330nm	10km	DFB	PIN
	10G	SFP+	LC	1270nm/1330nm	20km	DFB	PIN
	10G	SFP+	LC	1270nm/1330nm	40km	DFB	PIN
	10G	SFP+	LC	1270nm/1330nm	60km	DFB	APD
	10G	SFP+	LC	1490nm/1550nm	80km	EML	APD