

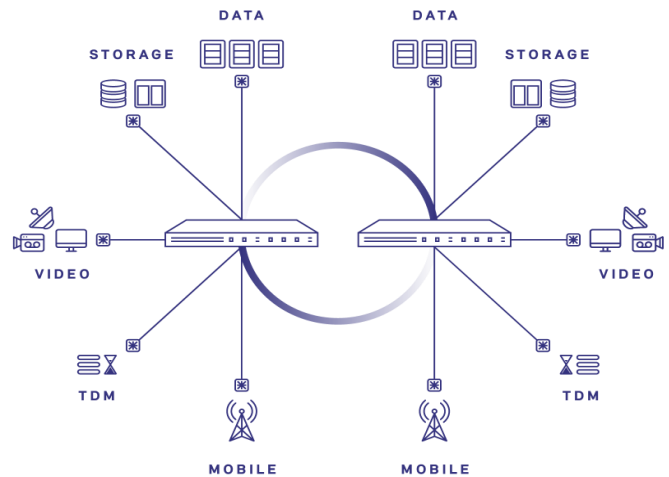
## Optical Infrastructure Solutions

### Overview

The Itectra Optical Infrastructure Solutions builds upon high-density WDM systems, optical transceivers and accessories designed to provide optical network support for high-speed data Ethernet and Fiber Channel communication.

These WDM systems and optical transceivers deliver capacity from 1 Gbps to 800 Gbps per wavelength suitable for datacenter, enterprises, and service provider networks.

In addition to WDM systems and optical transceivers the Itectra portfolio spans across long-haul active DWDM systems, MPO cassettes, inspection and cleaning equipment.



### Product Features

- Active DWDM systems
- Passive CWDM and DWDM systems
- 1/10/25/40/50/100/200/400 GbE transceivers
- 8/16/32Gb FC transceivers
- Direct Attach Cables (DAC)
- Active Optical Cables (AOC)
- MPO cassettes
- Inspection and cleaning equipment

### Applications

- Datacentre
- Enterprise
- Core/Metro/Access
- FTTX
- Mobile Fronthaul

### Supported by leading vendors

The Itectra Optical Infrastructure portfolio includes a variety of today's leading optical network vendors; Infinera, Skylane Optics, EXFO, Corning and Sticklers. Please consult Itectra for further information on specific products and solutions.

### Compatibility

Itectra offers a wide range of compatible solutions allowing full network operational capabilities across the network. All equipment and modules are fully compliant with the relevant standards and recommendations and are manufactured utilizing the highest quality components available.

## LGX – Patch Panels



Rec./Std: SMF: ITU-T G.657A  
 MMF: TIA-492-AAAD (OM4)  
 All materials RoHS and REACH compliant.  
 Connector design complies with IEC 61754-20

Chassis: LGX (H: 29, W: 129, D: 127 mm)<sup>1</sup>  
 Temp., Operation: -5°C – 70°C  
 Temp., Storage: -40°C – 85°C  
 Humidity: 5% – 85%

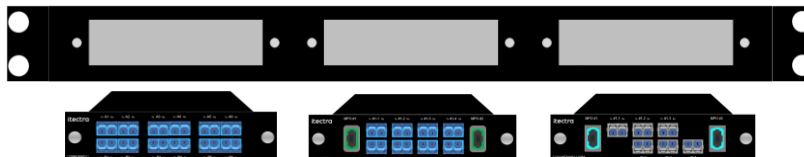
Product	Connectors front	Connector rear	Remark	Product Number
<b>Chassis</b>				
3 x LGX chassis, 1RU	---	---	3 LGX slots per chassis, 19"	LWDCHASSIS1RU03
14 x LGX chassis, 3RU	---	---	14 LGX slots per chassis, 19"	LWDCHASSIS3RU14
Cover plate for LGX	---	---	Cover plates for one LGX slot	LGXBLINDPLATE
<b>LGX cassettes (Type A, Straight)</b>				
12 fibers, Type A, OM4	6 x 2 LC/UPC	1 x MPO (M)/UPC	Straight, for Rack – Rack connection	LC0112OM4ALU1M
12 fibers, Type A, G.657A	6 x 2 LC/UPC	1 x MPO (M)/APC	Straight, for Rack – Rack connection	LC0112657ALU1M
12 fibers, Type A, G.657A	6 x 2 LC/APC	1 x MPO (M)/APC	Straight, for Rack – Rack connection	LC0112657ALA1M
24 fibers, Type A, OM4	12 x 2 LC/UPC	2 x MPO (M)/UPC	Straight, for Rack – Rack connection	LC0124OM4ALU2M
24 fibers, Type A, G.657A	12 x 2 LC/UPC	2 x MPO (M)/APC	Straight, for Rack – Rack connection	LC0124657ALU2M
24 fibers, Type A, G.657A	12 x 2 LC/APC	2 x MPO (M)/APC	Straight, for Rack – Rack connection	LC012657ALA2M
<b>LGX cassettes (Type B, Crossed)</b>				
8 fibers, Type B, OM4	4 x 2 LC/UPC	1 x MPO (M)/UPC	Cross, for 40GbE / 100GbE breakout	LC0108OM4BLP1M
8 fibers, Type B, G.657A	4 x 2 LC/UPC	1 x MPO (M)/APC	Cross, for 40GbE / 100GbE breakout	LC0108657BLU1M
8 fibers, Type B, G.657A	4 x 2 LC/APC	1 x MPO (M)/APC	Cross, for 40GbE / 100GbE breakout	LC0108657BLA1M
12 fibers, Type B, OM4	6 x 2 LC/UPC / 2 x MPO (M)/UPC	---	Cross, for 40GbE / 100GbE breakout	LC0112FM4BLU2M
16 fibers, Type B, OM4	8 x 2 LC/UPC / 2 x MPO (M)/UPC	---	Cross, for 40GbE / 100GbE breakout	LC0116FM4BLU2M
16 fibers, Type B, G.657A	8 x 2 LC/UPC / 2 x MPO (M)/APC	---	Cross, for 40GbE / 100GbE breakout	LC0116F57BLU2M
16 fibers, Type B, G.657A	8 x 2 LC/APC / 2 x MPO (M)/APC	---	Cross, for 40GbE / 100GbE breakout	LC0116F57BLA2M
16 fibers, Type B, OM4	8 x 2 LC/UPC	2 x MPO (M)/UPC	Cross, for 40GbE / 100GbE breakout	LC0112OM4BLU1M
16 fibers, Type B, G.657A	8 x 2 LC/UPC	2 x MPO (M)/APC	Cross, for 40GbE / 100GbE breakout	LC0112657BLU1M
16 fibers, Type B, G.657A	8 x 2 LC/APC	2 x MPO (M)/APC	Cross, for 40GbE / 100GbE breakout	LC0112657BLA1M
24 fibers, Type B, OM4	12 x 2 LC/UPC	3 x MPO (M)/UPC	Cross, for 40GbE / 100GbE breakout	LC0124OM4BLU1M
24 fibers, Type B, G.657A	12 x 2 LC/UPC	3 x MPO (M)/APC	Cross, for 40GbE / 100GbE breakout	LC0124657BLU1M
24 fibers, Type B, G.657A	12 x 2 LC/APC	3 x MPO (M)/APC	Cross, for 40GbE / 100GbE breakout	LC0124657BLA1M
<b>LGX cassettes (Type C, Crossed pair)</b>				
12 fibers, Type C, OM4	6 x 2 LC/UPC	1 x MPO (M)/UPC	Crossed Pair, for Rack – Rack connection	LC0112OM4CLU1M
12 fibers, Type C, G.657A	6 x 2 LC/UPC	1 x MPO (M)/APC	Crossed Pair, for Rack – Rack connection	LC0112657CLU1M
12 fibers, Type C, G.657A	6 x 2 LC/APC	1 x MPO (M)/APC	Crossed Pair, for Rack – Rack connection	LC0112657CLA1M
24 fibers, Type C, OM4	12 x 2 LC/UPC	2 x MPO (M)/UPC	Crossed Pair, for Rack – Rack connection	LC0124OM4CLU2M
24 fibers, Type C, G.657A	12 x 2 LC/UPC	2 x MPO (M)/APC	Crossed Pair, for Rack – Rack connection	LC0124657CLU2M
24 fibers, Type C, G.657A	12 x 2 LC/APC	2 x MPO (M)/APC	Crossed Pair, for Rack – Rack connection	LC0124657CLA2M

<sup>1</sup>: All LGX cassettes fits within a common LGX chassis

MPO/APC for G.657A fibres, MPO/UPC for OM4 fibres  
 MPO-16 / MPO-24 available on request

Please consult Itectra for specific customer requests

Specifications are subject to change without notice.



1RU chassis with three different patch panels.

## LGX – Splitters & Circulators



Rec./Std: SMF: ITU-T G.657A  
 MMF: TIA-492-AAAD (OM4)  
 All materials RoHS and REACH compliant.  
 Connector design complies with IEC 61754-20

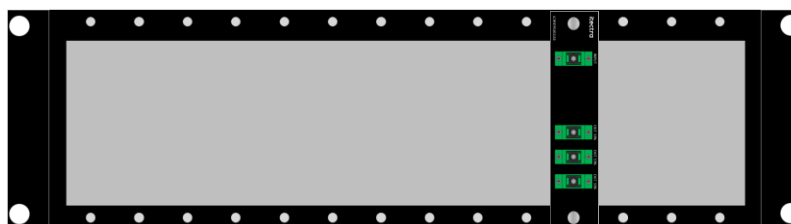
Chassis: LGX (H: 29, W: 129, D: 127 mm)<sup>1</sup>  
 Temp., Operation: -5°C – 70°C  
 Temp., Storage: -40°C – 85°C  
 Humidity: 5% – 85%

Product	Connectors front	Connector rear	Remark	Product Number
<b>Chassis</b>				
3 x LGX chassis, 1RU	---	---	3 LGX slots per chassis, 19"	LWDCHASSIS1RU03
14 x LGX chassis, 3RU	---	---	14 LGX slots per chassis, 19"	LWDCHASSIS3RU14
Cover plate for LGX	---	---	Cover plates for one LGX slot	LGXBLINDPLATE
<b>Couplers</b>				
1:2 Splitter	3 x SC/APC	---	1310/1550nm, 50% / 50% split	LCRFBTP31L11503
1:2 Splitter (set of two)	6 x SC/APC	---	1310/1550nm 50% / 50% split, set of two	LCRFBTP31L11503 (2)
1:3 Splitter	4 x SC/APC	---	1310/1550nm 33% / 34% / 33% split	LCRFBTP33L11S3
1:4 Splitter	5 x SC/APC	---	1310/1550nm 25% / 25% / 25% / 25% split	LCRFBTP34L11S3
1:2 Splitter	3 x SC/APC	---	1550nm, 50% / 50% split	LCRFBTP11011503
1:2 Splitter (set of two)	6 x SC/APC	---	1550nm, 50% / 50% split, set of two	LCRFBTP11011503 (2)
1:3 Splitter	4 x SC/APC	---	1550nm, 33% / 34% / 33% split	LCRFBTP13011S3
1:4 Splitter	5 x SC/APC	---	1550nm, 25% / 25% / 25% / 25% split	LCRFBTP14011S3
<b>Circulator (Bi-directional communication)</b>				
1310 Circulator	3 x LC/UPC	---	1310 ± 30nm polarisation-insensitive circulator	CIRPIOC3133116-L
1550 Circulator	3 x LC/UPC	---	1550 ± 30nm polarisation-insensitive circulator	CIRPIOC3153116-L

<sup>1</sup>: All LGX cassettes fits within a common LGX chassis

Please consult Itectra for specific customer requests

Specifications are subject to change without notice.



3RU chassis with 1:3 splitter inserted.

## LGX – CWDM Panels



Rec./Std: SMF: ITU-T G.657A  
 MMF: TIA-492-AAAD (OM4)  
 All materials RoHS and REACH compliant.  
 Connector design complies with IEC 61754-20

Chassis: LGX (H: 29, W: 129, D: 127 mm)<sup>3</sup>  
 Temp., Operation: -5°C – 70°C  
 Temp., Storage: -40°C – 85°C  
 Humidity: 5% – 85%

Product	Channels	Link loss (channels)	Link loss (ext)	Remarks	Product Number
<b>Chassis</b>					
3 x LGX chassis, 1RU	---	---	---	3 LGX slots per chassis, 19"	LWDCHASSIS1RU03
14 x LGX chassis, 3RU	---	---	---	14 LGX slots per chassis, 19"	LWDCHASSIS3RU14
Cover plate for LGX	---	---	---	Cover plates for one LGX slot	LGXBLINDPLATE
<b>CWDM MUX/DEMUX</b>					
4ch. CWDM MDU	C55 – C61	~2.6 dB per pair	~3.2 dB per pair	Ext port for other CWDM channels	LCW-MDU5-55-Ly <sup>1</sup>
4ch. CWDM MDU	C47 – C53	~2.6 dB per pair	~3.2 dB per pair	Ext port for other CWDM channels	LCW-MDU5-47-Ly <sup>1</sup>
4ch. CWDM MDU <sup>2</sup>	C35 – C37 / C43 – C45	~2.6 dB per pair	~3.2 dB per pair	Ext port for other CWDM channels	LCW-MDU5-35-Ly <sup>1</sup>
4ch. CWDM MDU	C27 – C33	~2.6 dB per pair	~3.2 dB per pair	Ext port for other CWDM channels	LCW-MDU5-27-Ly <sup>1</sup>
8ch. CWDM MDU	C47 – C61	~3.8 dB per pair	~5.6 dB per pair	Ext port for lower CWDM channels	LCW-MDU9-47-Ly <sup>1</sup>
8ch. CWDM MDU <sup>2</sup>	C27 – C37 / C43 – C45	~3.8 dB per pair	~5.6 dB per pair	Ext module for LCW-MDU9-47-Ly	LCW-MDU8-27-Ly <sup>1</sup>
<b>CWDM OADM</b>					
1ch CWDM OADM	Cxx	~0.8 dB	~0.8 dB	TFF, Other channels transit	LCW-OADM1-xx-Ly <sup>1</sup>
2ch CWDM OADM	Cxx – Cxx+1	Tx/Rx: 1.5dB / 0.8dB	Transit: 1.5dB	TFF, Other channels transit	LCW-OADM2-xx-Ly <sup>1</sup>
4ch CWDM OADM	Cxx – Cxx+3	Tx/Rx: 1.9dB / 0.8dB	Transit: 2.7dB	TFF, Other channels transit	LCW-OADM4-xx-Ly <sup>1</sup>

<sup>1</sup>: y indicates the polishing: A = APC, U = UPC

<sup>2</sup>: Waterpeak channels (1390 nm, 1410 nm) excluded

<sup>3</sup>: All LGX cassettes fits within a common LGX chassis

Please consult Itectra for specific customer requests

Specifications are subject to change without notice.

## LGX – DWDM Panels



Rec./Std: SMF: ITU-T G.657A  
 MMF: TIA-492-AAAD (OM4)  
 All materials RoHS and REACH compliant.  
 Connector design complies with IEC 61754-20

Chassis: LGX (H: 29, W: 129, D: 127 mm)<sup>3</sup>  
 Temp., Operation: -5°C – 70°C  
 Temp., Storage: -40°C – 85°C  
 Humidity: 5% – 85%

Product	Channels	Link loss (channels)	Link loss (ext)	Remarks	Product Number
<b>Chassis</b>					
3 x LGX chassis, 1RU	---	---		3 LGX slots per chassis, 19"	LWDCHASSIS1RU03
14 x LGX chassis, 3RU	---	---		14 LGX slots per chassis, 19"	LWDCHASSIS3RU14
Cover plate for LGX	---	---		Cover plates for one LGX slot	LGXBLINDPLATE
<b>DWDM MUX/DEMUX, 100 GHz spacing, 37.5 GHz / ±0.15 nm Passband</b>					
8ch. DWDM MDU	D30-37	~4.0dB per pair		Through CWDM 1530 nm	LDW-MDU8-30-53-Ly <sup>1</sup>
8ch. DWDM MDU	D54-61	~4.0dB per pair		Through CWDM 1550 nm	LDW-MDU8-54-55-Ly <sup>1</sup>
8ch. DWDM MDU	D19-26	~4.0dB per pair	~5.4dB per pair	TFF, ext port for other DWDM channels	LDW-MDU9-19-Ly <sup>1</sup>
8ch. DWDM MDU	D27-34	~4.0dB per pair	~5.4dB per pair	TFF, ext port for other DWDM channels	LDW-MDU9-27-Ly <sup>1</sup>
8ch. DWDM MDU	D35-42	~4.0dB per pair	~5.4dB per pair	TFF, ext port for other DWDM channels	LDW-MDU9-35-Ly <sup>1</sup>
8ch. DWDM MDU	D43-50	~4.0dB per pair	~5.4dB per pair	TFF, ext port for other DWDM channels	LDW-MDU9-43-Ly <sup>1</sup>
8ch. DWDM MDU	D51-58	~4.0dB per pair	~5.4dB per pair	TFF, ext port for other DWDM channels	LDW-MDU9-51-Ly <sup>1</sup>
8ch. DWDM MDU <sup>2</sup>	D51-58	~4.2dB per pair	~2.0dB per pair	TFF, 1x40G/100G port	LDW-MDU9-51-13-Ly <sup>1</sup>
<b>DWDM MUX/DEMUX, 200 GHz spacing, 112.5 GHz / ±0.90 nm Passband</b>					
8ch. DWDM MDU	D14-28	~4.0dB per pair		TFF, + ext port for other DWDM channels	LDW2-MDU9-14-Ly <sup>1</sup>
8ch. DWDM MDU	D30-44	~4.0dB per pair		TFF, + ext port for other DWDM channels	LDW2-MDU9-30-Ly <sup>1</sup>
8ch. DWDM MDU	D46-60	~4.0dB per pair	~5.4dB per pair	TFF	LDW2-MDU8-46-Ly <sup>1</sup>
<b>DWDM OADM, 100 GHz spacing, 37.5 GHz / ±0.15 nm Passband</b>					
1ch. DWDM OADM	Dxx	Tx/Rx: 1.0dB each	Transit: 1.0dB	East + West	LDW-OADM1-xx-Ly <sup>1</sup>
2ch. DWDM OADM	Dxx-Dxx+1	Tx/Rx: 1.4dB each	Transit: 1.8dB	East + West	LDW-OADM2-xx-Ly <sup>1</sup>
4ch. DWDM OADM	Dxx-Dxx+3	Tx/Rx: 2.2dB each	Transit: 3.2dB	East + West	LDW-OADM4-xx-Ly <sup>1</sup>

<sup>1</sup>: y indicates the polishing: A = APC, U = UPC

<sup>2</sup>: Features 1 x 40G/100G port covering the O-band (1260 – 1360 nm)

<sup>3</sup>: All LGX cassettes fits within a common LGX chassis

Monitoring port available on request

Please consult Itectra for specific customer requests

Specifications are subject to change without notice.

## About Ipectra

Since 2008 Ipectra has designed, delivered, and serviced business-critical IT infrastructure for Danish datacentres, public companies, enterprises, and service provider networks. Ipectra is specialized in the optical domain with focus on delivery of optical components, WDM systems and consultancy based on a solid knowledge of optical networks, physical optical behaviour, and future evolution of the optical market.

Ipectra has gained the Danish Børsen Gazelle Award in three continuous years (2016 – 2018) and has successively been Bisnode Triple-A rated since 2014.

This success is founded in a close cooperation with our customers and a deep professional understanding of their infrastructure challenges and needs. We follow the technology closely and ensure that our customers benefit from the latest technologies with the most suitable solution.

## Quality in all aspects

Ipectra aims for the highest quality in all aspects from optical network design to the selection of vendors and components to each specific project. All Ipectras vendors are carefully selected among the leaders in the optical world and have all the same clear view on “Quality in all aspects” as Ipectra.

## Service and Support

Ipectra offers a selection of service and support options to secure operational efficiency and resolve critical problems smoothly and with minimum impact on the operational infrastructure. To accommodate this Ipectra offers different services from Advanced Hardware Replacement to four hours SLA and Professional Deployment Services from selected vendors.

## Contacts

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