

# Pluggable Interface Modules

## Brief Overview



### Highlights:

- MSA compliant
- RoHS compatible
- Compatible with all major vendors
- Standard modules available from stock
- Special modules available on request

### Current

#### SFP+

Standard, DWDM/CWDM, BIDI

#### SFP

Standard, CWDM, DWDM, BIDI, asymmetric  
BIDI, copper, SGMI, Video, GEPOON/GPON,  
10G EPON/10G GPON, WDM PON

#### CSFP

BIDI

#### Video SFP

Transceiver, Single Tx, Single Rx, Dual Tx,  
Dual Rx

#### XFP

Standard, DWDM/CWDM, BIDI

#### QSFP

Standard, CWDM

#### CFP4

#### QSFP28

### Legacy

#### GBIC

Standard, CWDM, BIDI, copper

#### X2

Standard, DWDM/CWDM

#### XPAK

#### XENPAK

Standard, DWDM/CWDM

#### CFP

| Name/PN                       | Description  |
|-------------------------------|--|
| <b>SFP+</b>                   |  |
| <b>Multimode, Single mode</b> |  |
| <b>XTMdde-ffLh</b>            | SFP+, multimode<br>dd = {85 - 850 nm, 31 - 1310nm}<br>e = {6 – CPRI/OBSAI 6,25 Gb, 8 – 8/4/2 GB (FC) , A – 10 Gb, B – 16 Gb}<br>ff = {M1 – 100 m, M3 – 300 m, 02 – 2 km},<br>h = {Y, E, M – DDMI (0° – +70° C), (-20° – +85° C), (-40° – +85° C) respectively}<br>SFP+, single mode<br>dd = {31 – 1310 nm, 55 – 1550 nm}<br>e = {6 – CPRI/OBSAI 6,25 Gb, 8 – 8/4/2 GB (FC) , A – 10 Gb, B – 16 Gb}<br>ff = {10, 20, 40, 80, A0 – 10, 20, 40, 80, 100 km respectively}<br>h = {Y, E, M – DDMI (0° – +70° C), (-20° – +85° C), (-40° – +85° C) respectively} |
| <b>CWDM, DWDM</b>             |  |
| <b>XTCdde-ffLh</b>            | SFP+, CWDM<br>dd = {Lower WL: 27, 29, ..., 45 – 1270, 1290, ..., 1450 nm respectively;<br>Upper WL: 47, 49, ..., 61 – 1470, 1490, ..., 1610 nm respectively}<br>e = {8 – 8/4/2 GB (FC) , A – 10 Gb, B – 16 Gb}<br>ff = {10, 20, 40, 80 – 10, 20, 40, 80 km respectively}<br>h = {Y, E, M – DDMI (0° – +70° C), (-20° – +85° C), (-40° – +85° C) respectively}  |
| <b>XTcdde-ffLh</b>            | SFP+, DWDM<br>c = {D – C-band}<br>dd = {17 – 61 ITU grid channel (191,7 THz to 196,1 THz with 100 GHz spacing),<br>TC – Tunable C-band}<br>e = {A – 10 Gb, B – 16 Gb}<br>ff = {40, 80 – 40, 80 km respectively}<br>h = {Y, E, M – DDMI (0° – +70° C), (-20° – +85° C), (-40° – +85° C) respectively}   |
| <b>BIDI</b>                   |  |
| <b>XTBdde-ffLh</b>            | SFP+, BIDI<br>dd = {23 – 1270 nm/1330 nm, 32 - 1330 nm/1270 nm}<br>e = {A – 10 Gb}<br>ff = {10, 20, 40, 50, 60 – 10, 20, 40, 50, 60 km respectively}<br>h = {Y, E, M – DDMI (0° – +70° C), (-20° – +85° C), (-40° – +85° C) respectively}  |
| <b>SFP</b>                    |  |
| <b>Multimode, Single mode</b> |  |
| <b>XSMdde-ffLh</b>            | SFP, multimode<br>dd = {85 - 850 nm, 31 - 1310nm}<br>e = {C – 100/155 Mbps, 1 – 1 Gbps, 2 – 2 G, 4 – 4 G, M – 100 – 2700 Mb Multirate}<br>ff = {M3 – 300 m, M5 – 500 m, 02 – 2 km},<br>h = {Y – DDMI, N – no DDMI (0° – +70° C), E – DDMI, D – no DDMI (-20° – +85° C), M – DDMI,<br>L – no DDMI (-40° – +85° C)}  |
| <b>XSSdde-ffLh</b>            | SFP, single mode<br>dd = {31 – 1310 nm, 55 – 1550 nm}<br>e = {C – 100/155 Mbps, 1 – 1 Gbps, 2 – 2 G, 4 – 4 G, M – 100 – 2700 Multirate}<br>ff = {05, 10, 20, 30 40, 50, 80, C0, F0 – 5, 10, 20, 30, 40, 50, 80, 120, 150 km respectively}<br>h = {Y, E, M – DDMI (0° – +70° C), (-20° – +85° C), (-40° – +85° C) respectively,<br>N, D, L – no DDMI (0° – +70° C), (-20° – +85° C), (-40° – +85° C) respectively}  |
| <b>CWDM, DWDM</b>             |  |
| <b>XSCdde-ffLh</b>            | SFP, CWDM<br>dd = {Lower WL: 27, 29, ..., 45 – 1270, 1290, ..., 1450 nm respectively;<br>Upper WL: 47, 49, ..., 61 – 1470, 1490, ..., 1610 nm respectively}<br>e = {C – 100/155 Mbps, 1 – 1 Gbps, 4 – 4 G, L – 155 – 1280 Mbps Multirate,<br>M – 100 – 2700 Mbps Multirate}<br>ff = {40, 50, 80, C0, F0, I0, K0 – 40, 50, 80, 120, 150, 160, 180, 200 km respectively}<br>h = {Y, E, M – DDMI (0° – +70° C), (-20° – +85° C), (-40° – +85° C) respectively,<br>N, D, L – no DDMI (0° – +70° C), (-20° – +85° C), (-40° – +85° C) respectively}             |
| <b>XScdde-ffLh</b>            | SFP, DWDM C-band/L-band<br>c = {D – C-band, L – L-band}<br>dd = {17 – 61 ITU grid channel (191,7 THz to 196,1 THz with 100 GHz spacing),<br>62 – 99 and 00 – 16 ITU grid ch. (186,2 THz to 191,6 THz, 100 GHz spacing),<br>TC – Tunable C-band, TL – Tunable L-band}<br>e = {1 – 1 Gbps, 2 – 2 Gbps, M – 100 – 2700 Mbps Multirate}<br>ff = {80, C0 – 80, 120 km respectively}<br>h = {Y, E, M – DDMI (0° – +70° C), (-20° – +85° C), (-40° – +85° C) respectively}  |
| <b>BIDI, Asymmetric BIDI</b>  |  |
| <b>XSBdde-ffgh</b>            | SFP, BIDI<br>dd = {34 – 1310 nm/1490 nm, 43 - 1490 nm/1310 nm;<br>35 – 1310 nm/1550 nm, 53 - 1550 nm/1310 nm;<br>3W – 1310 nm/1490 – 1550 nm;<br>45 – 1490 nm/1550 nm, 54 – 1550 nm/1490 nm;   |

|                            |   |
|----------------------------|---|
|                            | <p>19 – 1510 nm/1590 nm, 91 – 1590 nm/1510 nm}<br/> <math>e = \{C - 100/155 \text{ Mbps}, 1 - 1 \text{ Gbps}, L - 155 - 1280 \text{ Mbps Multirate},</math><br/> <math>M - 100 - 2700 \text{ Mbps Multirate}\}</math><br/> <math>ff = \{02, 20, 40, 60, 80, C0 - 2, 20, 40, 60, 80, 120 \text{ km respectively}\}</math><br/> <math>g = \{S - SC, L - LC\}</math><br/> <math>h = \{Y, E, M - DDMI (0^\circ - +70^\circ C), (-20^\circ - +85^\circ C), (-40^\circ - +85^\circ C) \text{ respectively},</math><br/> <math>N, D, L - no DDMI (0^\circ - +70^\circ C), (-20^\circ - +85^\circ C), (-40^\circ - +85^\circ C) \text{ respectively}\}</math><br/> SFP, Asymmetric BIDI<br/> <math>dd = \{35 - 1310 \text{ nm}/1550 \text{ nm}, 53 - 1550 \text{ nm}/1310 \text{ nm}\}</math><br/> e – Call for information<br/> <math>ff = \{20, 40 - 20, 40 \text{ km respectively}\}</math><br/> <math>h = \{Y, E, M - DDMI (0^\circ - +70^\circ C), (-20^\circ - +85^\circ C), (-40^\circ - +85^\circ C) \text{ respectively},</math><br/> <math>N, D, L - no DDMI (0^\circ - +70^\circ C), (-20^\circ - +85^\circ C), (-40^\circ - +85^\circ C) \text{ respectively}\}</math> </p> |
| <b>XSBdde-ffLh</b>         | <b>Copper</b>   |
| <b>XSudde-M1Rh</b>         | <p>SFP, Copper, Ethernet, 100 m<br/> <math>dd = \{EC - Ethernet 100 Mb, EF - Ethernet 10/100 Mb,</math><br/> <math>EG - Eth. 1000 Mb, no TX disable function, no Link indicator,</math><br/> <math>E1 - Eth. 1000 Mb, TX disable function, Link indicator,</math><br/> <math>E2 - Eth. 1000 Mb, TX disable function, no Link indicator,</math><br/> <math>EM - Eth. 10/100/1000 Mb, no TX disable function, no Link indicator,</math><br/> <math>EA - Eth. 10/100/1000 Mb, TX disable function, Link indicator,</math><br/> <math>EB - Eth. 10/100/1000 Mb, TX disable function, no Link indicator\}</math><br/> <math>e = \{C - 100/155 \text{ Mbps}, 1 - 1 \text{ Gbps}\}</math><br/> <math>h = \{Y, E - DDMI (0^\circ - +70^\circ C), (-20^\circ - +85^\circ C) \text{ respectively},</math><br/> <math>N, D - no DDMI (0^\circ - +70^\circ C), (-20^\circ - +85^\circ C) \text{ respectively}\}</math> </p>   |
| <b>SGMI</b>                |   |
| <b>XSc31C-ffLY</b>         | <p>SFP, SGMI, 100/155 Mbps<br/> <math>C = \{M - Multimode, S - Single mode\}</math><br/> <math>ff = \{02, 10 - 2, 10 \text{ km respectively}\}</math><br/> <math>g = \{S - SC, L - LC\}</math><br/> <math>h = \{Y, E, M - DDMI (0^\circ - +70^\circ C), (-20^\circ - +85^\circ C), (-40^\circ - +85^\circ C) \text{ respectively},</math><br/> <math>N, D, L - no DDMI (0^\circ - +70^\circ C), (-20^\circ - +85^\circ C), (-40^\circ - +85^\circ C) \text{ respectively}\}</math> </p>   |
| <b>GEPON/GPON</b>          | Call for information  |
| <b>10 G EPON/10 G GPON</b> | Call for information  |
| <b>WDM PON</b>             | Call for information  |
| <b>CSFP</b>                |   |
| <b>BIDI</b>                |   |
| <b>XDBdd1-ffLh</b>         | <p>Compact BIDI SFP, 1 Gbps<br/> <math>dd = \{34 - 1310 \text{ nm}/1490 \text{ nm}, 43 - 1490 \text{ nm}/1310 \text{ nm}; 53 - 1550 \text{ nm}/1310 \text{ nm}\}</math><br/> <math>ff = \{10, 20, 40 - 10, 20, 40 \text{ km respectively}\}</math><br/> <math>h = \{Y, M - DDMI (0^\circ - +70^\circ C), (-40^\circ - +85^\circ C) \text{ respectively}\}</math> </p>   |
| <b>Video SFP</b>           |   |
| <b>Transceiver</b>         |   |
| <b>Single Tx</b>           | <p>Video SFP Transceiver<br/> <math>c = \{8 - Two \text{ fiber SM } 1x \text{ TX, } 1x \text{ Rx, B - CWDM two fiber } 1x \text{ TX, } 1x \text{ RX}\}</math><br/> <math>dd = \{31 - TX: 1310 \text{ nm, RX: 1260-1620 nm,}</math><br/> <math>51 - TX: 1550 \text{ nm, RX: 1260-1620 nm,}</math><br/> <math>\text{lower WL: } 27 - 1270 \text{ nm, } 29 - 1290 \text{ nm, ..., } 45 - 1450 \text{ nm,}</math><br/> <math>\text{upper WL: } 47 - 1470 \text{ nm, } 49 - 1490 \text{ nm, ..., } 61 - 1610 \text{ nm}\}</math><br/> <math>ff = \{02, 20, 40 - 2, 20, 40 \text{ km respectively}\}</math><br/> <math>h = \{Y, E, M - DDMI (0^\circ - +70^\circ C), (-20^\circ - +85^\circ C), (-40^\circ - +85^\circ C) \text{ respectively}\}</math> </p>  |
| <b>XVcdd3-ffLY</b>         |   |
| <b>Single Rx</b>           |   |
| <b>XV1103-00LY</b>         | Video SFP Single Rx   |
| <b>Dual Tx</b>             |   |
| <b>XVcdd3-ffLY</b>         | <p>Video SFP Dual Tx<br/> <math>c = \{6 - Two \text{ fiber SM } 2x \text{ TX, C - CWDM one fiber } 2x \text{ TX}\}</math><br/> <math>dd = \{33 - TX1: 1310 \text{ nm, TX2: 1310 nm,}</math> </p>  |

55 – TX1: 1550 nm, TX2: 1550 nm,  
 TX1 Wavelength (first d)  
 lower WL: 0 – 1270 nm, 1 – 1290 nm, ..., 9 – 1450 nm,  
 upper WL: A – 1470 nm, B – 1490 nm, ..., H – 1610 nm  
 TX2 Wavelength (second d)  
 lower WL: 0 – 1270 nm, 1 – 1290 nm, ..., 9 – 1450 nm,  
 upper WL: A – 1470 nm, B – 1490 nm, ..., H – 1610 nm}  
 ff = {02, 20, 40 – 2, 20, 40 km respectively}  
 h = {Y, E, M – DDMI (0° – +70° C), (-20° – +85° C), (-40° – +85° C) respectively}

### Dual Rx

|                    |   |
|--------------------|---|
| <b>XV7113-00Lh</b> | Video SFP Dual Rx<br>h = {Y, E, M – DDMI (0° – +70° C), (-20° – +85° C), (-40° – +85° C) respectively,<br>N, D, L – no DDMI (0° – +70° C), (-20° – +85° C), (-40° – +85° C) respectively} |
|--------------------|---|

### XFP

#### Multimode, Single mode

|                    |  |
|--------------------|--|
| <b>XXMdde-ffLh</b> | XFP, multimode<br>dd = {85 - 850 nm, 31 - 1310nm}<br>e = {A – 10 Gb}<br>ff = {M3 – 300 m, 02 – 2 km},<br>h = {Y, E, M – DDMI (0° – +70° C), (-20° – +85° C), (-40° – +85° C) respectively}                                       |
| <b>XXSdde-ffLh</b> | XFP, single mode<br>dd = {31 – 1310 nm, 55 – 1550 nm}<br>e = {A – 10 Gb}<br>ff = {10, 20, 40, 80, C0 – 10, 20, 40, 80, 120 km respectively}<br>h = {Y, E, M – DDMI (0° – +70° C), (-20° – +85° C), (-40° – +85° C) respectively} |

#### CWDM, DWDM

|                    |   |
|--------------------|---|
| <b>XXCddA-ffLY</b> | XFP, CWDM 10 Gbps, DDMI<br>dd = {Lower WL: 27, 29, ..., 45 – 1270, 1290, ..., 1450 nm respectively;<br>Upper WL: 47, 49, ..., 61 – 1470, 1490, ..., 1610 nm respectively}<br>ff = {10, 40, 70, 80 – 10, 40, 70, 80 km respectively}   |
| <b>XXcddA-ffLY</b> | XFP, DWDM C-band/L-band, 10 Gbps, DDMI<br>c = {D – C-band, L – L-band}<br>dd = {17 – 61 ITU grid channel (191,7 THz to 196,1 THz with 100 GHz spacing),<br>TC – Tunable C-band,<br>62 – 99 and 00 – 16 ITU grid ch. (186,2 THz to 191,6 THz, 100 GHz spacing),<br>TL – Tunable L-band}<br>ff = {40, 80, C0 – 40, 80, 120 km respectively} |

### BIDI

|                    |   |
|--------------------|---|
| <b>XXBddA-10LY</b> | XFP, BIDI 10 Gbps, 10 km, DDMI<br>dd = {23 – 1270 nm/1330 nm, 32 - 1330 nm/1270 nm} |
|--------------------|---|

### QSFP

#### Multimode, Single mode

|                    |   |
|--------------------|---|
| <b>XQMdd3-ffPY</b> | QSFP, multimode, 40 Gbps, DDMI<br>dd = {85 - 850 nm, 31 - 1310nm}<br>ff = {M1 – 100 m, M3 – 300 m, 02 – 2 km} |
| <b>XQS313-ffPY</b> | XFP, single mode, 1310 nm, 40 Gbps, DDMI<br>ff = {01, 10 – 1, 10 km respectively}                             |

### CWDM

|                    |  |
|--------------------|--|
| <b>XQC273-ffLY</b> | QSFP, CWDM, 1270 nm starting WL, 4 channels, 40 Gbps, DDMI<br>ff = {M1, 02, 10, 30 – 100 m, 2, 10, 30 km respectively} |
|--------------------|--|

### CFP4

Call for information

### QSFP28

Call for information

### Legacy

|                       |                      |
|-----------------------|----------------------|
| <b>GBIC, X2, XPAK</b> | Call for information |
| <b>XENPAK, CFP</b>    | Call for information |

Note: In some cases, maybe not all possible combinations are available.

To find out more, please contact:

Xenya d.o.o  
 Celovška cesta 172  
 1000 Ljubljana  
 Slovenija  
 +386 (0)1 514 06 10  
[info@xenya.si](mailto:info@xenya.si)