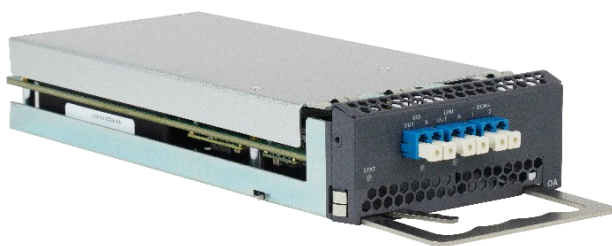


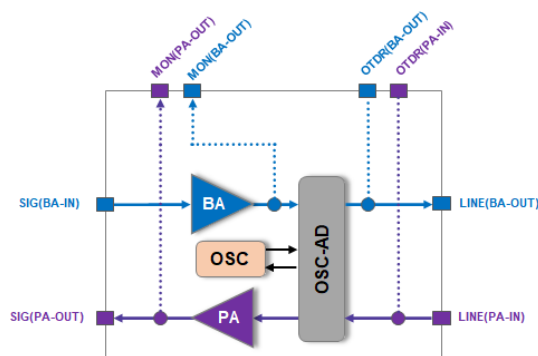
Optical Amplifier Card: OA

The main function of OA (Optical Amplifier) card launched by Sintai Communication is to compensate the power of signal light in the transmission link, it can amplify the optical signals of up to 48 channels in C-band (channel spacing of 100GHz) or 96 channels (channel spacing of 50GHz) at the same time, and has the features of gain flatness, adjustable gain and small noise index. Meanwhile, the card has built-in OSC optical monitoring channel to support OSC-based DCN communication, which is an indispensable part of DWDM system and future high-speed system, all-optical network long-distance transmission.

Product view



Function structure



Application case

- Suitable for optical terminal stations (OTM), used as booster amplifier for multiplexed signals and pre-amplifier for demultiplexed signals
- Suitable for optical relay stations (OLA) to amplify bi-directional transmission signals and extend the transmission distance

Product specification

Optical Amplifier Card (OA)	
Slot number	1 slot
EDFA	<ul style="list-style-type: none"> ● Optional built-in 1*EDFA (BA, PA, LA parameters optional) ● Optional built-in 2*EDFA (BA, PA, LA parameters optional)
OSC	<ul style="list-style-type: none"> ● Optional without OSC ● Optional built-in 1*OSC ● Optional built-in 2*OSC ● Working wavelength: 1510nm ● Working rate: 1.25Gb/s
VOA	<ul style="list-style-type: none"> ● Optional built-in VOA, the same number as EDFA ● Location: EDFA front input ● Inherent insertion loss: <1dB ● Adjustment range: 0 ~ 15dB ● Power down state is inherent insertion loss
MON Monitoring port	Standard, optical power difference between MON and main optical channel 21~23dB
OTDR Measurement port	<ul style="list-style-type: none"> ● Optional, the number of ports is the same as the line interface

	<ul style="list-style-type: none">OTDR signal wavelength: 1625nmOTDR channel loss: <1dB		
EDFA Parameter			
	20G17	20G25	20G30
Wavelength range(nm)	1528~1568	1528~1568	1528~1568
Gain range(dB)	14 ~ 20	22 ~ 28	27 ~ 33
Maximum total output optical power(dBm)	≥20	≥20	≥20
Noise(dB)	< 5.5	< 5.5	< 5.5
Gain flatness(dB)	< 1.5	< 1.5	< 1.5
Polarization correlation loss(dB)	< 0.5	< 0.5	< 0.5
Input optical power detection range(dBm)	-23 ~ 8	-31 ~ 0	-36 ~ -5
Output optical power detection range(dBm)	-6 ~ 20	-6 ~ 20	-6 ~ 20
Reflection coefficient(dB)	< -30	< -30	< -30
Gain stability(dB)	±0.5	±0.5	±0.5

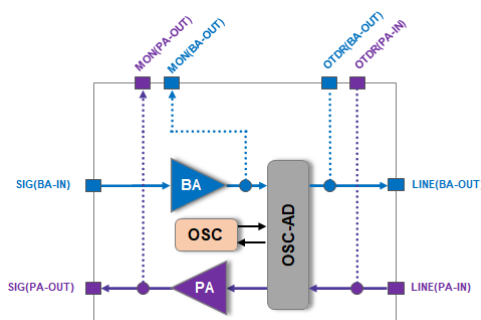
Optical Terminal Station Amplifier Card: OTA

The main function of OTA (Optical Terminal Amplifier) card launched by Sintai Communication is to compensate the power of the optical signal in the transmission link, and it can simultaneously amplify the optical signals of up to 48 channels in C-band (100GHz channel spacing) or 96 channels (50GHz channel spacing), with the features of flat gain, adjustable gain, small noise index, and so on. Meanwhile, the board has built-in OSC optical monitoring channel and supports DCN communication based on OSC, which is an indispensable part of DWDM system and future high-speed system and all-optical network for long-distance transmission.

Product view



Function structure



Application case

- Suitable for Optical Terminal Stations (OTM), booster amplification and preamplification for combined wave signals.

Product Specification

Optical Terminal Station Amplifier Card (OTA)			
Function	Support booster amplification and preamplification of the combined signals with built-in 1 directional OSC channel		
Slot number	2 slots		
Integration level	Built-in 1*BA, 1*PA, unidirectional OSC, VOA, passive filter, etc.		
Safety	Support Automatic Power Reduction (APR) technology		
Monitoring port	Reserved OCM and OTDR monitoring port for line side transmit and receive directions, can be connected to external OCM and OTDR board		
Line side VOA location	PA front input (BA without VOA)		
VOA Intrinsic insertion loss	< 1dB		
VOA Adjustment range	0 ~ 15dB		
OSC Operating wavelength	1510nm		
OSC Operating rate	1.25Gb/s		
OTDR Channel wavelength	1625nm		
OTDR Channel loss	< 1dB		
EDFA Parameter			
	BA: 21G13V	PA: 21G20V	PA: 21G30V

Wavelength range(nm)	1528 ~1568	1528~1568	1528~1568
Operating mode	AGC or APC configurable	AGC or APC configurable	AGC or APC configurable
Gain range(dB)	8 ~ 18 configurable	15 ~ 25 configurable	22 ~ 35 configurable
Maximum total optical power output(dBm)	≥ 21	≥ 21	≥ 21
Gain flatness(dB)	< 1.5	< 1.5	< 1.5
Gain slope(dB)	-3 ~ 0	-3 ~ 0	-3 ~ 0
Polarization-related losses(dB)	< 0.5	< 0.5	< 0.5
Input optical power measurement range(dB)	-18 ~ 13	-28 ~ 6	-35 ~ 0
Output optical power measurement range(dB)	-2 ~ 22	-2 ~ 22	-2 ~ 22
Reflection coefficient(dB)	< -30	< -30	< -30
Gain stability(dB)	± 0.5	± 0.5	± 0.5

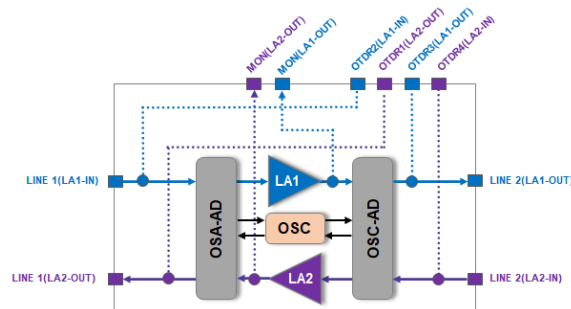
Optical Line Station Amplifier Card: OLA

The main function of OLA (Optical Line Amplifier) card launched by Sintai Communication is used at the intermediate optical amplifier station in the line, to periodically compensate for the loss of each section of the optical fiber, and to extend the transmission distance. It can simultaneously amplify the optical signals of up to 48 channels in C-band (100GHz channel spacing) or 96 channels (50GHz channel spacing), with the features of flat gain, adjustable gain, small noise index, and so on. Meanwhile, the board has built-in OSC optical monitoring channel and supports DCN communication based on OSC, which is an indispensable part of DWDM system and future high-speed system and all-optical network for long-distance transmission.

Product view



Function structure



Application case

- Suitable for Optical Line Stations (OLA), to amplify bidirectional transmission signals and extend transmission distance

Product Specification

Optical Line Station Amplifier Card (OLA)		
Function	Support bidirectional relay amplification of combined signals from optical relay stations, with built-in OSC channels in both east and west directions	
Slot number	2 slots	
Integration level	Built-in 2*LA, bidirectional OSC, VOA, passive filter, etc.	
Safety	Support Automatic Power Reduction (APR) technology	
Monitoring port	Reserved OCM and OTDR monitoring port for line side transmit and receive directions, can be connected to external OCM and OTDR board	
Line side VOA location	LA front input	
VOA Intrinsic insertion loss	< 1dB	
VOA Adjustment range	0 ~ 15dB	
OSC Operating wavelength	1510nm	
OSC Operating rate	1.25Gb/s	
OTDR Channel wavelength	1625nm	
OTDR Channel loss	< 1dB	
EDFA Parameter		
	LA: 21G20V	LA: 21G30V
Wavelength range(nm)	1528~1568	1528~1568
Operating mode	AGC or APC configurable	AGC or APC configurable
Gain range(dB)	15 ~ 25 configurable	22 ~ 35 configurable

Maximum total optical power output(dBm)	≥ 21	≥ 21
Gain flatness(dB)	< 1.5	< 1.5
Gain slope(dB)	$-3 \sim 0$	$-3 \sim 0$
Polarization-related losses(dB)	< 0.5	< 0.5
Input optical power measurement range(dB)	$-28 \sim 6$	$-35 \sim 0$
Output optical power measurement range(dB)	$-2 \sim 22$	$-2 \sim 22$
Reflection coefficient(dB)	< -30	< -30
Gain stability(dB)	± 0.5	± 0.5