

Kingray

Specialist in Digital TV Distribution Solutions



Optical Fibre Catalogue 2024

OPTICAL FIBRE TRANSMITTERS

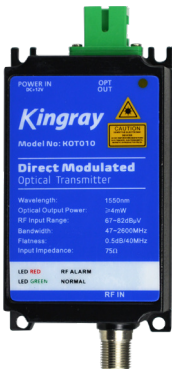
The KOT001A directly modulated optical transmitter has an input range of 47~2600MHz and is specifically designed for the transmission of Digital TV (DVB-C, DVB-T/T2) and Satellite TV (DVB-S) signals.

This transmitter is Foxtel approved & is ideal for use in a FTTx PON system.

The KOT010 transmitter is a compact wall mountable transmitter & is ideal for point to point applications.

FEATURES

- Wide Band Type: 47~2600MHz
- Suitable for Digital TV and Satellite TV application
- One fibre can transmit Digital TV (DVB-C, DVB-T/T2) and satellite TV (DVB-S)
- Cooled HGHL DFB laser provides better system stability (KOT001A only)
- KOT001A can be amplified by EDFA to cover large-scale FTTH and is compatible with any FTTx PON technology
- Dual power supply, 1+1 backup KOT001A only)



KOT010

OPTICAL FIBRE TRANSMITTERS		
PART NUMBERS	DESCRIPTION	FOXTEL IPL NO.
KOT001A	Optical Fibre Transmitter 1555nm - 4mW/6dBm, 19" Rack Mount	F31211
KOT010	Optical Fibre Transmitter 1550nm - 4mW/6dBm, Compact & Wall Mountable	F31150



KOT001A

OPTICAL FIBRE RECEIVERS

The KOR100X optical receiver uses a high-sensitivity PIN detector.

The KOR100X next generation optical receiver supports GPON & XGS-PON wavelengths & also has AGC on the RF output for a typical RF output level of 85dB.

FEATURES

- High linearity, suitable for Digital TV and SAT-IF application
- Wide band Type: 47~2600MHz
- Digital TV (DVB-C, DVB-T/T2) and Satellite TV (DVB-S) signal can be received via a single fibre at the same time
- Built-in WDM (KOR100X only) to separate wavelengths of 1555nm (CATV) and 1270/1310/1490/1577nm (data)
- LED indicator
- Compact in design, wall mountable and light weight



KOR100X



KOR002

OPTICAL FIBRE RECEIVERS		
PART NUMBERS	DESCRIPTION	FOXTEL IPL NO.
KOR100X	1555nm Optical Fibre Receiver with WDM	F31210
KOR002	1550nm Optical Fibre Receiver	F31076

OPTICAL FIBRE AMPLIFIERS (EDFA)

The KOA Series are a range of low noise, high performance, Fibre to the premises (FTTP) high power, multi-ports optical amplifiers with a gain spectrum bandwidth within 1540~1563nm range. The output port for the optical amplifier has a built-in Coarse Wavelength Division Multiplexer to enable multiplexing with corresponding input ports connecting to a carrier OLT PON port should this be required.

Each 1550nm (CATV)'s output optical port can optically multiplex with corresponding 1270/1310/1490/1577 (GPON & XGS-PON) carrier OLT PON input data stream to reduce the number of components and improve the reliability of the system.

FEATURES

- Built-in low noise pre-amplifier
- 1540~1563nm operating bandwidth for optical amplifier
- 4~32 uplink optical ports, for OLT
- 4~32 1550nm output optical ports, multiply 1270/1310/1490/1577 data stream
- Each output optical port includes built-in high performance CWDM, single fibre, to save optical fibre resources
- Compatible with any FTTx PON technology: EPON, GPON, XGS-PON
- Carrier level reliability with network management
- SNMP Management interface
- Efficient space, simple and reliable in construction/maintenance
- Dual power supply, 1+1 backup

AMPLIFIERS WITH WDM

PART NUMBERS	DESCRIPTION
KOA4PX-15	4 Port 1550nm Optical Fibre Amplifier - 15.5dBm per port (23dBm total)
KOA8PX-15	8 Port 1550nm Optical Fibre Amplifier - 15.5dBm per port (27dBm total)
KOA16PX-15	16 Port 1550nm Optical Fibre Amplifier - 15.5dBm per port (30dBm total)
KOA32PX-15	32 Port 1550nm Optical Fibre Amplifier - 15.5dBm per port (34dBm total)

*customised models available upon request



KOA4PX-15



KOA8PX-15



KOA16PX-15



KOA32PX-15

OPTICAL FIBRE SPLITTERS

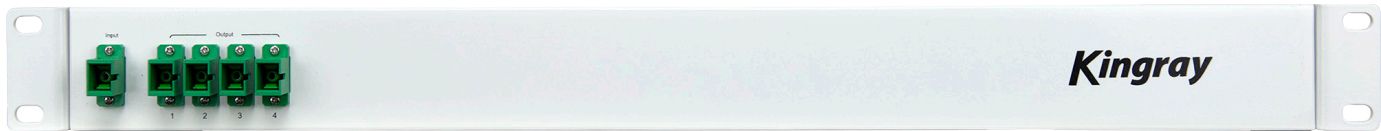
FEATURES

- Low insertion loss, high uniformity
- Low polarization loss
- Wide working wavelength range
- Wide working temperature range
- High stability and reliability
- 19" rack mount

Planar Optical Waveguide Optical Splitter (PLC Splitter) is an integration waveguide optical power distribution device that is based on quartz substrate, has a wide working wavelength range, high reliability and excellent uniformity of optical split.

It is especially suitable for connecting a local unit with a terminal unit in passive optical networks (EPON, GPON, etc.) to achieve optical signal splitting. The main design divides optical signals in optical communication systems into multi-way output.

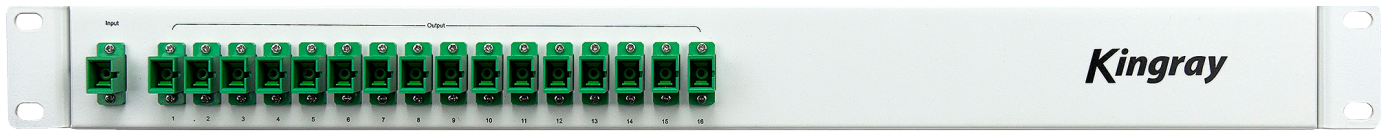
PART NO.	KPLC104	KPLC108	KPLC116	KPLC132
PERFORMANCE	SPECIFICATIONS			
Outputs	4	8	16	32
Fibre Type	G.657.A			
Working Wavelength	1260nm~1650nm			
Maximum Insertion Loss (dB)	≤7.4	≤10.7	≤13.9	≤17.2
Port Insertion Loss Uniformity (dB)	≤0.6	≤8.0	≤1.0	≤1.5
Wavelength Insertion Loss Uniformity (dB)	≤8.0		≤1.0	
Return Loss (dB)	≥55			
Directivity (dB)				



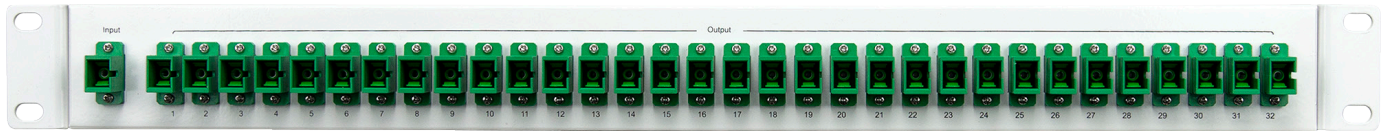
KPLC104



KPLC108



KPLC116



KPLC132

ENCLOSURE WITH OPTICAL FIBRE SPLITTER

PRODUCT DESCRIPTION

The Optic Fibre Splitter Enclosure is made from a blend of ABS+PC. It's available in various PLC cassette type optical splitter configurations.

ENCLOSURE WITH OPTICAL FIBRE SPLITTER	
PART NUMBERS	DESCRIPTION
KPLC104HUB	4 Way PLC Optical Splitter in Distribution Hub
KPLC108HUB	8 Way PLC Optical Splitter in Distribution Hub
KPLC104108HUB	4 Way & 8 Way PLC Optical Splitter in Distribution Hub
KPLC116HUB	16 Way PLC Optical Splitter in Distribution Hub
KPLC132HUB	32 Way PLC Optical Splitter in Distribution Hub

HOUSING FEATURES

- The distribution box is made of ABS+PC
- Waterproof, suitable for indoor and outdoor installation
- IP55 rated enclosure

PLC SPLITTER FEATURES

- Low insertion & polarity loss
- Wide working wavelength range & temperature range
- High stability and reliability

ACCESSORIES INCLUDED IN EACH ENCLOSURE

- Nylon Cable Ties
- Single Core Fuse Protection Tube
- Metal Clamp
- Screws
- Wall Plug
- Bare Fibre Protective Tube
- Cabinet Key
- 30mm Rubber Hole Plug
- 35mm Rubber Hole Plug

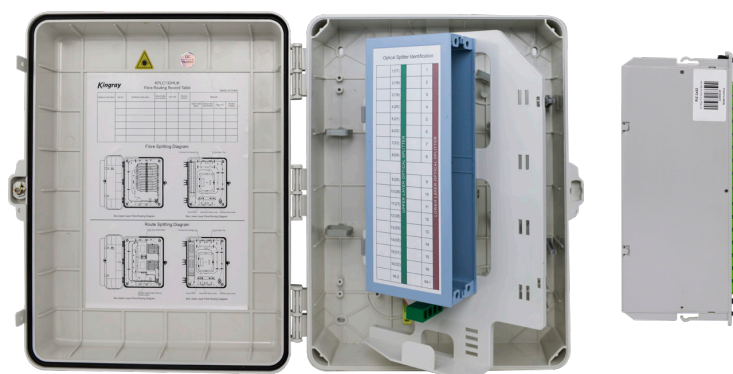
PLC SPLITTER PERFORMANCE	1 x 4	1 x 8	1 x 16	1 x 32
Working Wavelength (nm)	1260 ~ 1650			
Insertion Loss (dB)	≤ 7.4	≤ 10.7	≤ 13.9	≤ 17.2
Polarization Dependence Loss (dB)	≤ 0.3			
Uniformity (dB)	≤ 0.8	≤ 1.0	≤ 1.4	≤ 1.6
Directivity (dB)	≥ 55			
Echo Loss (dB)	≥ 50			

HOUSING PRODUCT SIZE

- 420 x 350 x 130mm

HOUSING WORK ENVIRONMENT

- Work temperature: -20°C ~ +60°C



Model KPLC132HUB shown

OPTICAL FIBRE LEADS

Pre-terminated single mode patch leads, with a low smoke zero halogen PVC jacket.
Available in various lengths.

OPTICAL FIBRE PATCH LEADS 9/125µm, 2.0mm (LSZH)		
PART NUMBERS	LENGTH	DESCRIPTION
KLE010	0.5m	SC/APC to SC/APC Single Mode Patch Lead
KLE011	0.5m	SC/APC to SC/PC Single Mode Patch Lead
KLE012	1.0m	SC/APC to SC/APC Single Mode Patch Lead
KLE013	1.0m	SC/APC to SC/PC Single Mode Patch Lead
KLE014	1.5m	SC/APC to SC/APC Single Mode Patch Lead
KLE015	1.5m	SC/APC to SC/PC Single Mode Patch Lead
OPTICAL FIBRE LEADS 9/125µm, 3.0mm (LSZH)		
PART NUMBERS	LENGTH	DESCRIPTION
KLE10MSC	10m	10m SC/APC to SC/APC Single Mode Lead
KLE15MSC	15m	15m SC/APC to SC/APC Single Mode Lead
KLE20MSC	20m	20m SC/APC to SC/APC Sing-
KLE25MSC	25m	25m SC/APC to SC/APC Single Mode Lead
KLE30MSC	30m	30m SC/APC to SC/APC Single Mode Lead
KLE35MSC	35m	35m SC/APC to SC/APC Single Mode Lead
KLE40MSC	40m	40m SC/APC to SC/APC Single Mode Lead
KLE45MSC	45m	45m SC/APC to SC/APC Single Mode Lead
KLE50MSC	50m	50m SC/APC to SC/APC Single Mode Lead
KLE60MSC	60m	60m SC/APC to SC/APC Single Mode Lead
KLE70MSC	70m	70m SC/APC to SC/APC Single Mode Lead
KLE80MSC	80m	80m SC/APC to SC/APC Single Mode Lead
KLE90MSC	90m	90m SC/APC to SC/APC Single Mode Lead
KLE100MSC	100m	100m SC/APC to SC/APC Single Mode Lead

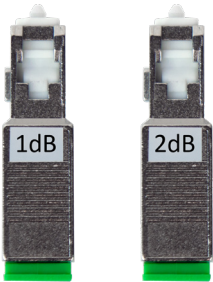


SPECIFICATIONS	
Connector Type	SC to SC
Fibre Mode	Single Mode 9/125µm
Insertion Loss	≤0.3dB
Fibre Grade	G.657A2
Attenuation at 1310nm	0.36 dB/km
Fibre Count	Simplex
Cable Jacket	LSZH PVC
Operating Temperature	-20~60°C
Polish Type	APC & PC
Wavelength	1310/1490/1550nm
Return Loss	≥60dB
Minimum Bend Radius	30mm
Attenuation at 1550nm	0.22 dB/km
Cable Diameter	2.0mm (patch leads) & 3.0mm
Storage Temperature	-40~80°C

OPTICAL FIBRE ATTENUATORS

SC Single Mode Male to Female Attenuator. Designed to attenuate the optical fibre signal (1260~1620) in a stable & desired level without any changes to the original transmission wave.

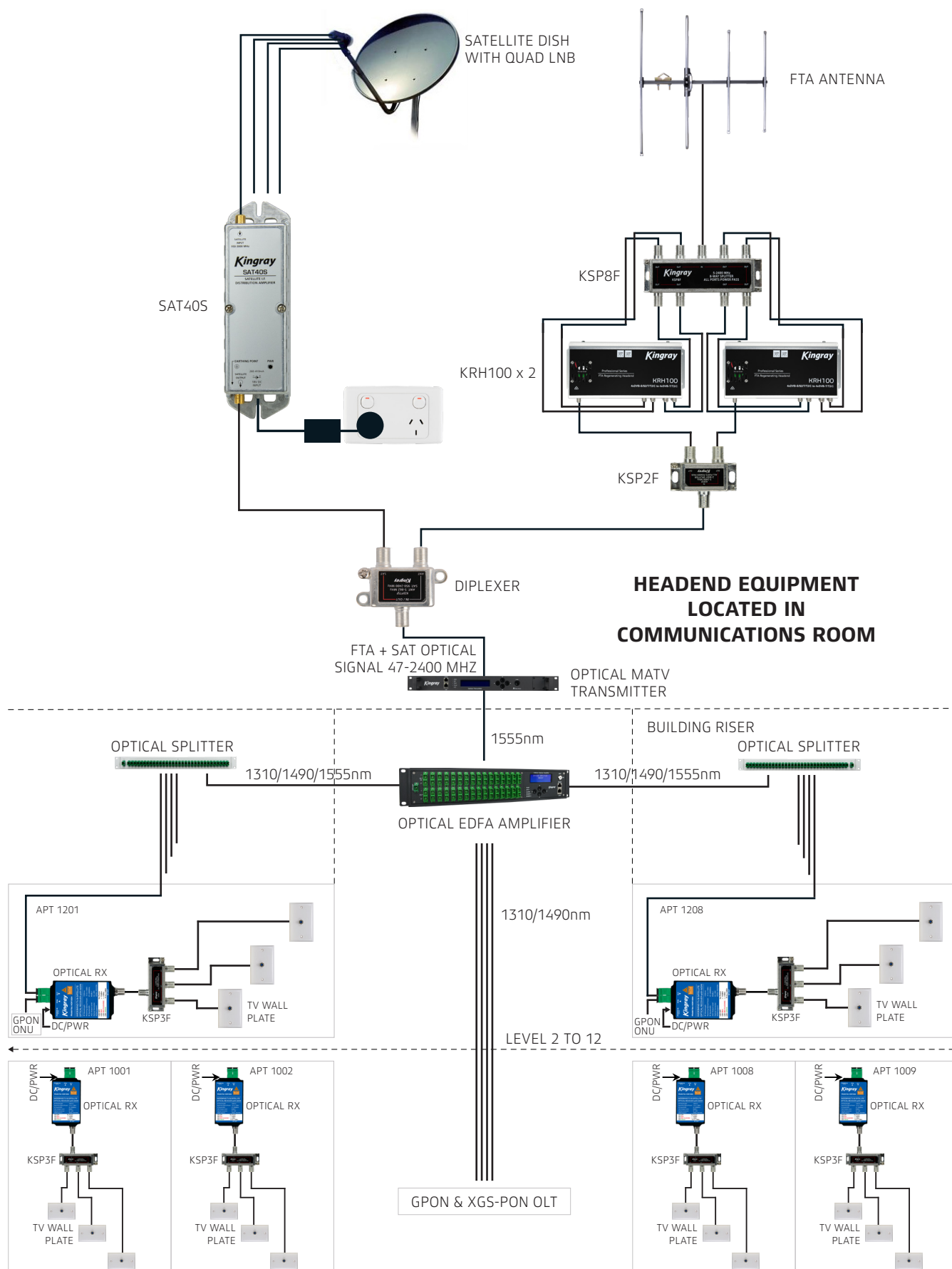
OPTICAL FIBRE ATTENUATORS	
PART NUMBERS	DESCRIPTION
KOATT1DB	1dB Optical Attenuator F-M SC/APC
KOATT2DB	2dB Optical Attenuator F-M SC/APC
KOATT5DB	5dB Optical Attenuator F-M SC/APC
KOATT10DB	10dB Optical Attenuator F-M SC/APC



OPTICAL SOLUTION EXAMPLE

All RF active and passive devices within the Headend and Risers must be earthed.

- Below is an example of an optical fibre design for a multi-dwelling unit (MDU)
- All apartments are 2 or 3 bedrooms with a combined TV/Foxtel socket required for living room and all bedrooms



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