

CONTENT

OPTICAL-AMPLIFYING EQUIPMENT

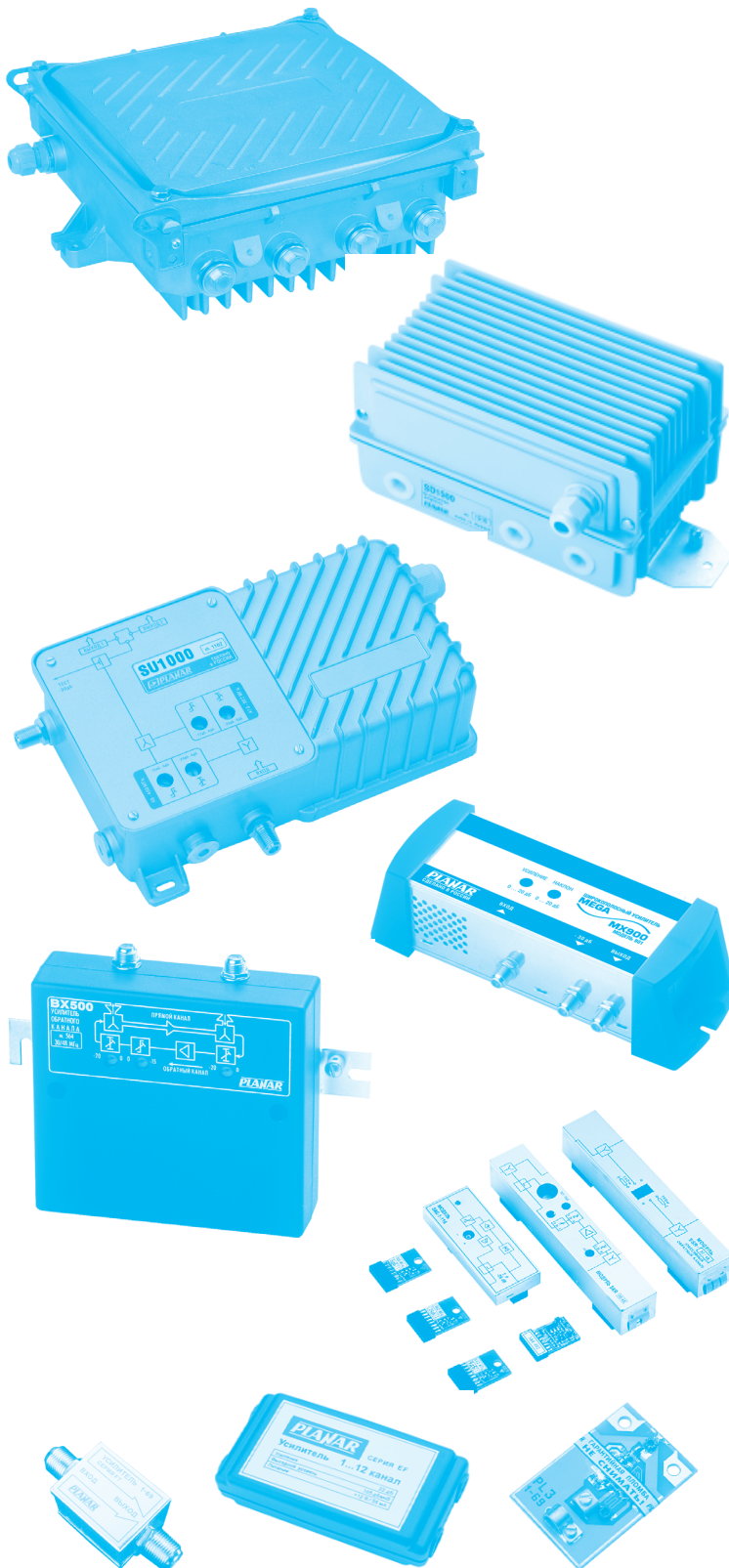
OPTICAL-AMPLIFYING PLATFORM SN2000. ANNOUNCEMENT

OPTICAL RECEIVERS SERIES SDO1200

OPTICAL RECEIVERS SERIES MXO 900. ANNOUNCEMENT

SOME REASONS TO DEFINE NECESSITY OF USING «PLANAR» OPTICAL-AMPLIFYING EQUIPMENT WHILE DESIGNING MODERN MULTISERVICE NETWORKS

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«PLANAR» company defines the fiber-optical communication equipment as a long-term future. Years of investigations and developments in this field allowed to create the product line covering the widest application range. All equipment are a prominent example of «PLANAR» high technology, each of model is a result of intensive investigations and long tests before printing into the product catalogue.

This synthesis of technical temptations and everyday working means in practically that all optical-amplifying equipment is high reliable and exceptionally effective in price.

■ YOU ARE BUILDING MULTISERVICE NETWORKS WITHIN THE RADIUS OF 10000 KM FROM CHELYABINSK.

■ YOU WANT TO GET A COMPOSITE SERVICE INCLUDING NOT ONLY HIGH QUALITY EQUIPMENT DELIVERY, BUT ALSO FURTHER GUARANTEE AND POST-GUARANTEE MODERN MAINTENANCE, HIGH QUALIFICATION PERSONNEL CONSULTATION TO EQUIPMENT INSTALLATION AND OPERATION WITH OPTIONAL VISIT TO «MOUNTING PLACE», EQUIPMENT ADJUSTMENT UNDER ORIGINAL PROJECT FEATURES – RIGHT UP TO EQUIPMENT DEVELOPMENT IN THE SHORTEST TIME ACCORDING TO CUSTOMER'S TECHNICAL PURPOSES. ALL THIS SERVICE COMPOSITION IS SUPPORTED BY 14-YEAR EXPERIENCY OF PROFESSIONAL MANAGEMENT ON TELEVISION TECHNOLOGY MARKET, PROPRIETARY MODERN PRODUCTION BASE, PERSONNEL HIGH QUALIFICATION AND AS A RESULT HIGH QUALITY AND COMPETITIVE CHARACTERISTICS OF PUT ON SALE EQUIPMENT.

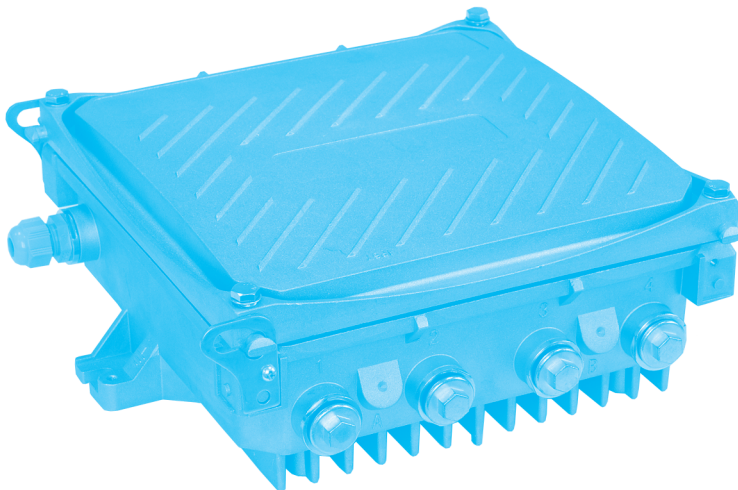
■ YOU COUNT MONEY. WE PROPOSE THE INDIVIDUAL APPROACH TO FORM THE PRICE WITH EACH CUSTOMER. OUR EQUIPMENT IS SOLD IN MANY REPRESENTATIONS OF LEADING SYSTEM INTEGRATORS OVER RUSSIA. WE SUPPORT «HOT STOCK» OF POPULAR POSITIONS IN COORDINATED VOLUME, WHICH IS IMPORTANT WHILE WIDE-SCALE BUILDING BASED ON PRINCIPLE «ON TIME» AS A GUARANTEE OF FAST INVESTMENT RECOVERY.

■ YOU WANT TO FURTHER DEVELOP YOUR BUSINESS AND GET MORE PROFIT. OUR TEAM-WORKS WITH LEADING COMPOSITE SOFTWARE MANUFACTURERS FOR AUTOMATIC PROJECTING, DESIGNING AND DOCUMENTATION MANAGING AND OPTICAL-COAXIAL NETWORKS MANAGING ALLOW TO OFFER FOR FUTHER DEVELOPMENT SUCH SERVICES AS NETWORK INFRASTRUCTURE EXAMINATION TO HELP TIMELY LOCALIZATION OF POSSIBLE ERROR SOURCES AND PROBLEMS IN OPERATIVE NETWORK SEGMENTS BEFORE THEY SIGNIFICANTLY AFFECT ON INFORMATION ACCESS. POSSESSING INTEGRAL SOLUTIONS FOR MANAGING, THE SUGGESTED PROGRAM PACKET HELPS TO BE EXCESSIVELY ECONOMICAL ON SEPARATE SERVICES ELIMINATING DEFECTS AND AVOID EXPENSIVE SYSTEM FAILS. SUPPLEMENTS FROM THE PACKET CAN BE EASILY AND QUICKLY APPLIED ON A WHOLE BUSINESS AND THEY FLEXIBLE GROW TOGETHER WITH YOUR NETWORK. IN THE SAME TIME, AFTER REDUCING OF THE ENTERPRISE EXPENCES, INCREASING OF SERVICES AVAILABILITY AND LOWERING TOTAL OWNER EXPENCES, IT IS MADE QUICK INVESTMENT RECOVERY.

OPTICAL-AMPLIFYING PLATFORM SN2000. ANNOUNCEMENT

- POWER DISTRIBUTION AMPLIFIER WITH HIGH OUTPUT LEVEL 127 dB μ V.
- INPUT AND OUTPUT SIGNALS CAN BE SEPARATED BY SPLITTER AND TAP INSERTABLE MODULES.
- ALL PORTS REMOTE FEEDING CURRENT TRANSIT 8 A.
- DIFFERENT INSERTABLE MODULE TYPES OF FORWARD PATH OPTICAL RECEIVERS.
- INPUT OPTICAL POWER REPRESENTING (-10...+3 dBm).
- INSERTABLE MODULE WIDE COLLECTION OF RETURN PATH OPTICAL TRANSMITTERS.
- INPUT AND INTERSTAGE LEVEL AND SLOPE CONTROL.
- TEST PORTS IN FORWARD AND RETURN PATHS. OPTIONAL RETURN PATH TEST SIGNAL PASS THROUGH TEST TAP.
- DIFFERENT TYPES OF FORWARD AND RETURN PATH MODULES (DIPLEXERS, AMPLIFIERS).

Stage by stage extension of cable network by setting supplement modules while new operator needs appearance. Modification can be easily executed immediately on the installation place in operating network.



DISTRIBUTION AMPLIFIER TECHNICAL SPECIFICATION

FORWARD PATH	
Frequency range, MHz	48...862
Gain, dB	29...39
Flatness, dB	$\pm 0,5$
Max output level at IMA III(B) -60dB, dB μ V	127
Max output level CTB/CSO 42ch, dB μ V	112/114
Input level control range, dB	0...20
Input equalizer control range, dB	0...27 (insertable module)
Return losses, dB	18 (40 MHz)-1,5 dB/octave
RETURN PATH	
Frequency range, MHz	5...65
Gain, dB	30/20/-6
Flatness, dB	$\pm 0,75$
Max output level at IMA III(B) -60dB, dB μ V	118
Noise figure, dB	6
Level control range (input/output), dB	0...10
Input equalizer control range, dB	0...10
Return losses, dB	18
OPTICAL NODE	
FORWARD PATH	
Optical signal wave length, nm	1200...1600
Input optical power, dBm	-8...+3
Optical return losses, dB	45
Equivalent input noise, pA/ $\sqrt{\text{Hz}}$	6
RETURN PATH	
Input level for OMI=4%, dB μ V	70

GENERAL TECHNICAL SPECIFICATION

HAM modulation, dB	70
Max transit current, A	8
Remote feeding supply, V	~ 20...65, =30...90
Mains supply voltage, V	~ 187...244
Power consumption (amplifier/optical node), W	24/30
Enclosure	IP64
Weight, kg	3
Dimension, mm	260x250x105
Operating temperature range, °C	-40...+55
Link connector	5/8"
Optical connector	SC/APC(optional)
Test port connectors	F-quick
Test port signal attenuation, dB	20

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INSERTABLE MODULES FOR PLATFORM SN2000

Filters-diplexers

SDP-00	47...862 MHz (through)
SDP-30	5...30/48...862 MHz
SDP-42	5...42/58...862 MHz
SDP-55	5...55/65...862 MHz
SDP-65	5...65/87...862 MHz

Input-output power splitters

SDM-00	through 0 dB
SDM-04	splitter 4/4 dB
SDM-08	tap 2/8 dB
SDM-16	tap 1/16 dB
SDM-12	tap 2/12 dB
SDM-20	tap 1/20 dB

Return path amplifier series SAR:

SAR-01	
SAR-02	
SAR-03	

Return path modules

SAR-01	passive return path insertion
SAR-02	return path amplifier 20 dB
SAR-03	return path amplifier 30 dB

Optical modules

SOR-01	optical receiver -8...-2 dBm
SOR-02	optical receiver -3...+3 dBm
SOT-01	return path transmitter +1 dBm
SOT-03	return path transmitter +3 dBm
SOT-0351	RP transmitter, CWDM, DFB 1510 nm, +3 dBm
SOT-0353	RP transmitter, CWDM, DFB 1530 nm, +3 dBm
SOT-0355	RP transmitter, CWDM, DFB 1550 nm, +3 dBm
SOT-0357	RP transmitter, CWDM, DFB 1570 nm, +3 dBm

INSERTABLE MODULES FOR PLATFORM SN2000

Variable equalizers

- SVE-862 Frequency range 48...862 MHz, control range 0...20 dB
- SVE-606 Frequency range 48...606 MHz, control range 0...18 dB
- SVE-450 Frequency range 48...450 MHz, control range 0...15 dB
- SVE-300 Frequency range 48...300 MHz, control range 0...15 dB

Fixed equalizer, 2 positions

- SEF862-3/6...24/27 Frequency range 48...862 MHz, setting step 3 dB
- SEF606-3/6...24/27 Frequency range 48...606 MHz, setting step 3 dB
- SEF350-3/6...24/27 Frequency range 48...350 MHz, setting step 3 dB
- SEF300-3/6...24/27 Frequency range 48...300 MHz, setting step 3 dB
- SEC862-2/4...8/10 Frequency range 48...862 MHz, setting step 2 dB (cable equivalent)

Attenuator

- SAF Attenuator on 4 positions 3/6/9/12 dB

Transponders series STU

- STU-01
- STU-02
- STU-03

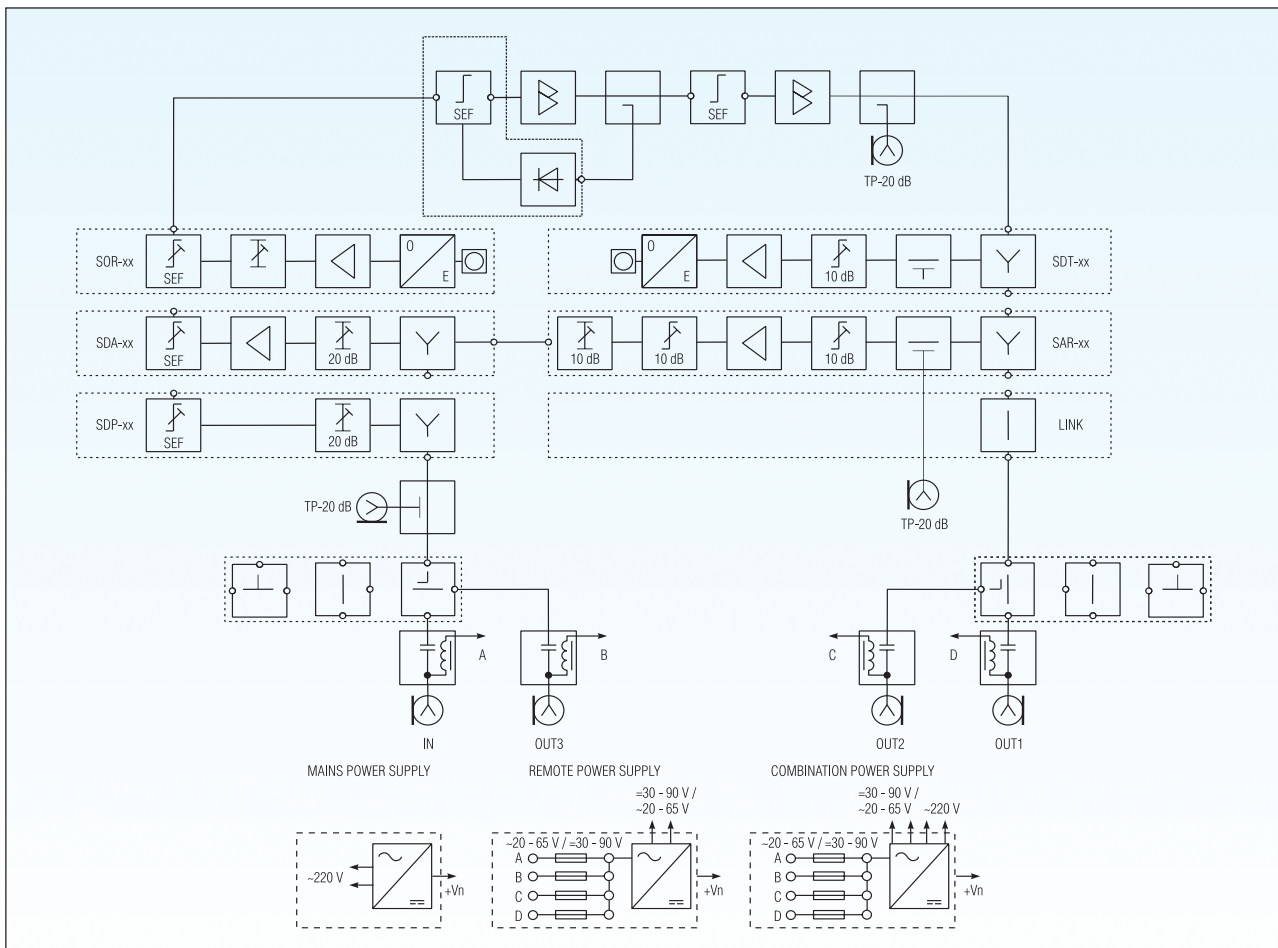
Mediaconverters series SMC

- SMC-01
- SMC-02
- SMC-03
- SMC-04

Automatic control modules series SAC

- SAC-01
- SAC-02
- SAC-03

STRUCTURE SCHEMATIC OF OPTICAL-AMPLIFYING PLATFORM SN2000



OPTICAL RECEIVERS SERIES SDO1200

Designed with world tendency of closing optical networks to end customer, while organization of operating in the return paths, SKS technologies are used (e.g., over twisted pair).



- INPUT OPTICAL POWER WIDE RANGE.
- INPUT OPTICAL POWER DISPLAY.
- HIGH OUTPUT LEVEL.
- INSERTIONS OF AFR CORRECTORS WIDE COLLECTION.
- TWO OUTPUTS.
- MODELS WITH DIFFERENT POWER SUPPLY TYPES.

MODEL LINE OF OPTICAL RECEIVERS SERIES SDO1200

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Feeding

mains	1200-LC
remote	1210-LC
combination (mains is base, remote is reserve, automatic switching)	1220-LC

SPECIFICATION

RADIOFREQUENCY

Operating frequency range, MHz	48...862
Flatness, dB	±0,75
Max output level at IMA III(B) -60 dB (Pin=-6 dBm, OMI=40%), dBμV	122,5
Max output level CTB/CSO 42ch (Pbx=-6 dBm, OMI=4%), dBμV	108/108
Level control range, dB	0...20
Equalizer control range, dB	0...27 (insertable module)
Return losses, dB	18 (40 MHz) -1,5 dB/octave

OPTICAL

Optical signal wave length, nm	1200...1600
Input optical power, dBm	-6...+3
Optical return losses, dB	45
Equivalent input noise, pA/√Hz	6

GENERAL SPECIFICATION

HAM modulation, dB	70
Max transit current, A	6
Remote operating voltage, V	~ 20...65, = 30...90
Mains operating voltage, V	~ 187...244
Power consumption, W	15
Enclosure	IP64
Operating temperature range, °C	-20...+50
Dimension, mm	195x140x100
Weight, kg, or less	1,5
Link connector	5/8"
Optical connector	SC/APC (optional)
Test port connectors	F-quick
Test port signal attenuation dB	20

**INSERTABLE MODULES FOR
OPTICAL RECEIVERS SERIES SDO1200**

Output power splitters

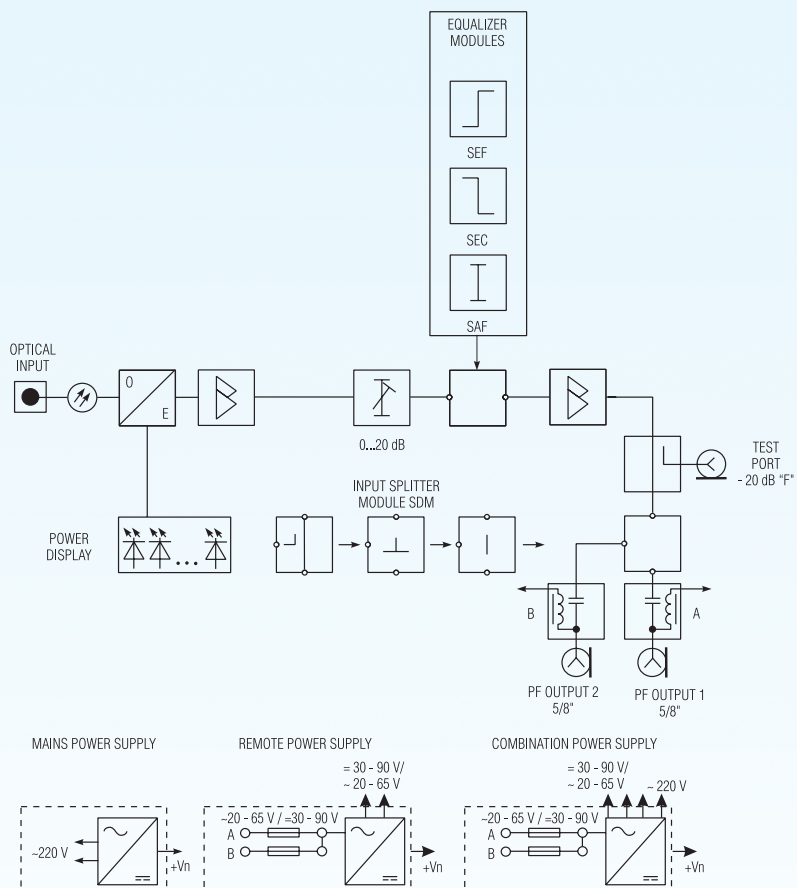
SDM-00	through 0 dB
SDM-04	splitter 4/4 dB
SDM-08	tap 2/8 dB
SDM-12	tap 2/12 dB
SDM-16	tap 1/16 dB
SDM-20	tap 1/20 dB

Equalizers on 2 positions

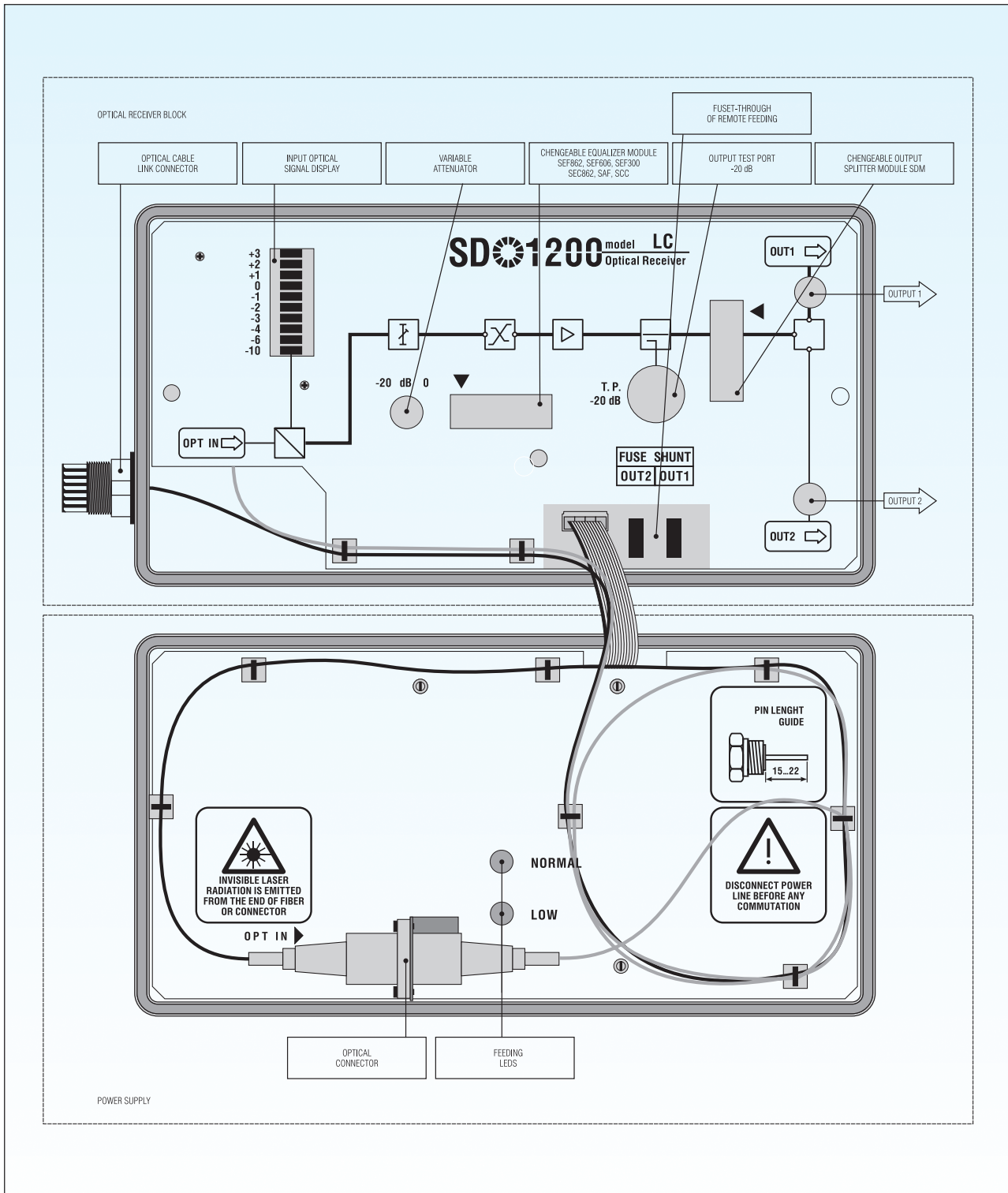
SEF862-3/6...24/27	frequency range 48...862 MHz, setting step 3 dB
SEF606-3/6...24/27	frequency range 48...606 MHz, setting step 3 dB
SEF450-3/6...24/27	frequency range 48...450 MHz, setting step 3 dB
SEF350-3/6...24/27	frequency range 48...350 MHz, setting step 3 dB
SEF300-3/6...24/27	frequency range 48...300 MHz, setting step 3 dB
SEC862-2/4...8/10	frequency range 48...862 MHz, setting step 2 dB (cable equivalent)

Attenuator

SAF	attenuator on 4 positions 3/6/9/12 dB
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ASSIGNMENT AND LOCATION OF BUILT-IN REGULATORS,
INSERTABLE MODULES IN OPTICAL RECEIVER SDO1200



OPTICAL RECEIVERS SERIES MXO 900. ANNOUNCEMENT

Designed with world tendency of closing optical networks to end customer, while organization of operating in the return paths, SKS technologies are used (e.g., over twisted pair).

- INPUT OPTICAL POWER WIDE RANGE (+3...-6 dBm).
- INPUT OPTICAL POWER DISPLAY.
- HIGH OUTPUT LEVEL.
- BUILT-IN EQUALIZER.
- DIFFERENT POWER SUPPLY TYPES.



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SPECIFICATION

RADIOFREQUENCY	
Frequency range, MHz	48...862
Flatness, dB	±0,75
Max output level IMAIII(B)-60dB, dB μ V	117
Max output level CTB/CSO 42 ch CENELEC, dB μ V	102/102
Level control range, dB	0...20
Equalizer control range, dB	0...18
Return losses, dB	18 (40 MHz) - 1,5 dB/octave
OPTICAL	
Optical signal wave length, nm	1200...1600
Input optical power, dBm	-6...+3
Return losses, dB	45
Equivalent input noise, pA / \sqrt Hz	6
GENERAL SPECIFICATION	
HAM modulation, dB	70
Mains operating voltage, V	~ 187...244
Power consumption, W	6

MXO910 TECHNICAL SPECIFICATION

RADIOFREQUENCY	
Frequency range, MHz	48...862
Flatness, dB	±0,75
Max output level CTB/CSO 42 ch GENELEC, dBμV	90/90
Level control range, dB	0...20
Equalizer control range, dB	0...18
OPTICAL	
Optical signal wave length, nm	1200...1600
Input optical power, dBm	-6...+3
Return losses, dB	45
GENERAL SPECIFICATION	
HAM modulation, dB	70
Mains operating voltage, V	~ 187...244
Power consumption, W	3