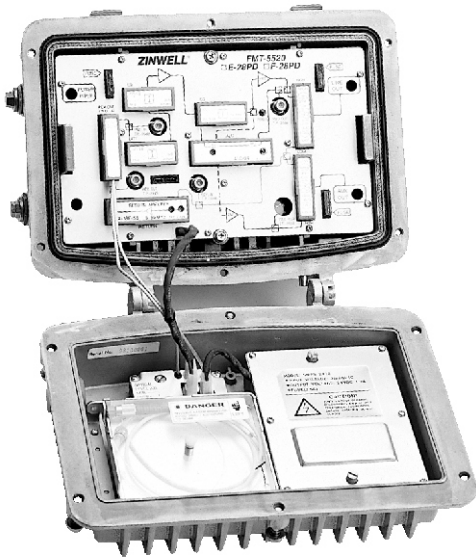


Trunk Line Optical Node with Forward Balanced Dual Output



FMT-5520 F

Features :

- Wide operating voltage range 30 ~ 90 V AC
- Optical level indicators available
- Modular design making maintenance easy and function flexible
- Optional reverse amplifier and transmitter module providing capability of advanced two-way data, video, and telephony services
- Uses hybrid module for power doubling amplification
- Forward balance dual output
- Mounting scheme: strand or pedestal installation
- All RF / AC ports are equipped with arresters for protection
- Automatic level control (ALC) with a high/ low switch for easy setup

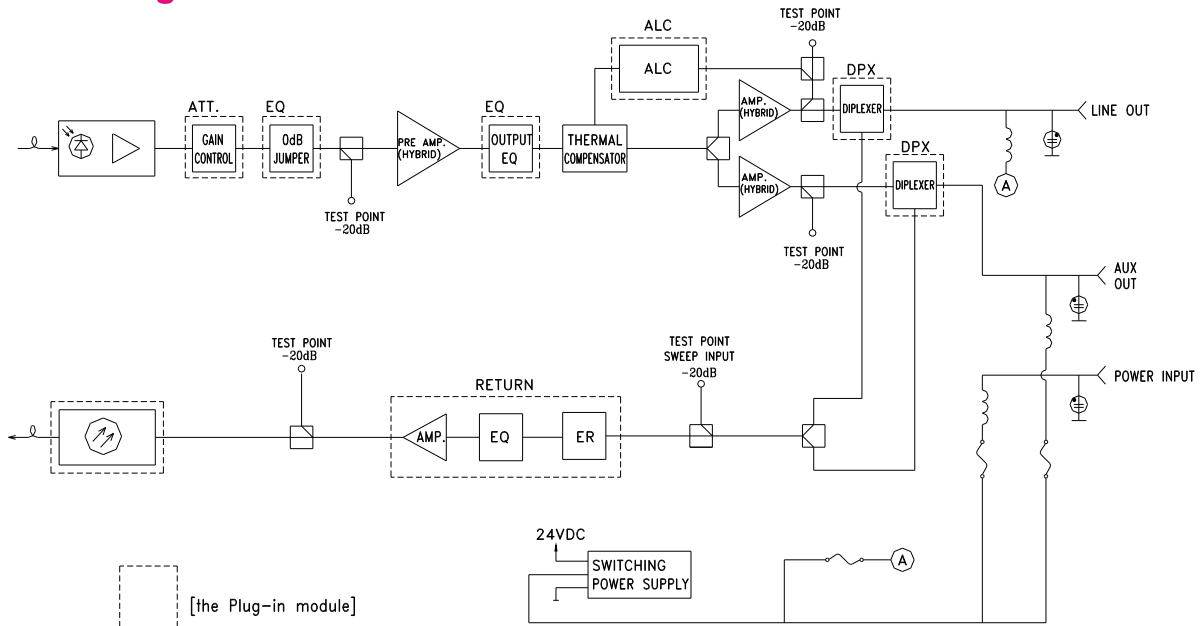
Descriptions :

- The FMT-5520 is the best solution for delivering video, data and telephony service over the HFC network.
- The optical node is offered with a variety of plug-in pads, equalizers, directional couplers and automatic level control in order to customize the unit to your coaxial link and frequency plan.
- The optical input level indicators are displayed with red and green LEDs, for monitoring the lower, normal and higher input level according to -7 dBm ~ +3 dBm.
- The optical input test point can read the optical input level accurately by measuring the DC level directly.
- The modular design of the optical reverse transmitter makes field installation easy.
- Any existing Zinwell's MT-35 series can be upgraded to trunk line optical node function by replacing the original one with the top cover of FMT-55 series.



Trunk Line Optical Node with Forward Balanced Dual Output

Block Diagram :



Specifications :

RF Amplifier

Model Number		FMT-5520F-28PD	
Frequency Range	MHz	862	
Frequency Response	dB	± 0.75	
Mini Full Gain	dB	28	
Operation Gain	Not include ALC	dB	26
	Include ALC	dB	26
Gain Control (Plug-in)	Adjustable	dB	0 ~ 18
	Fixed	dB	0 ... 9 (in 1 dB step)
Slope Control (Plug-in)	Adjustable	dB	None
	Fixed	dB	0, 3, 6, 8, 9
AGC (Thermal compensation)	dB	± 2 (built-in)	
ALC (Auto level control)	dB	± 4 (optional)	
Ref. Output Level*	NTSC	129 chs.	
	dBuV	97 / 106 (55 / 862 MHz)	
Composite Second Order (CSO)	dB	-59	
Composite Triple Beat (CTB)	dB	-52	
Cross Modulation (XMOD)	dB	-60	
Noise Figure	dB	8	
Return Loss	dB	16 typ. 12 min.	
Current Consumption	mA	1200 including RA: 80 / ALC: 60	

Specifications are subject to change without notice.



Trunk Line Optical Node with Forward Balanced Dual Output

Receiver Module

Output Frequency Range		MHz	47 ~ 862
Input Optical Wavelength		nm	1250 ~ 1600
Input Power Range		mW	0.2 ~ 2 (-7 dBm ~ 3 dBm)
Absolute Max. Input Power		mW	5 (7 dBm)
Frequency Response		dB	± 0.5
Optical Input Return Loss		dB	40
Output Return Loss	47 ~ 550 MHz	dB	16
	550 ~ 862 MHz	dB	14
RF Output Level*	-3 dBm Optical Input	dBmV	19 ± 0.8 (79 dBmV)
	0 dBm Optical Input	dBmV	25 ± 0.8 (85 dBmV)
Input Connector			FC / APC
Input Optical Type	Cladding 125 mm, cor 9 mm		9 / 125 Single mode
LED Indicator	Green On		Normal (0.2 mW ~ 2 mW)
	Red On		Over (> 2 mW)
	Green & Red Off		Below (< 0.2 mW)
Input Optical Test Point (1 volt / 1 mW)		V	0.5 mW (-3 dBm) = 0.5 V , 1.0 mW (0 dBm) = 1.0 V 2.0 mW (+3 dBm) = 2.0 V □
Current Consumption		DC	250 mA max. @ 24 V DC

* Assumes 3.8% modulation index per channel, 1310(min.)

Transmitter Module (Optional)

Frequency Range		MHz	5 ~ 100		
Current Consumption		mA	50		
Output Power		mW	0.5 (-3 dBm)		
Optical Fiber	core 9 mm, cladding 125 mm		9 / 125 single mode		
Wavelength		nm	1310		
Power Consumption		W	0.5 @ 24 V DC, 20 mA		
RF input to Transmitter		dBmV	90 dBmV *		
Output Connector			FC/ APC		
C/N (dB)			2 ch., 3 ch.	4 ch.	5 ch.
			(@ RF input level= 96 dBmV)	(@ RF input level= 92 dBmV)	(@ RF input level= 90 dBmV)
Optical Link Loss (dB)					
0			58	56	54
3			55	53	51
6			52	50	48
9			49	47	45
12			46	44	42

* Channel loading is 5 CW carriers at T7 through T11 with the reference RF input level.



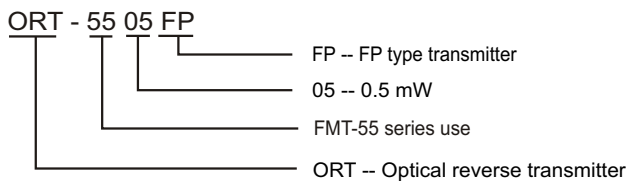
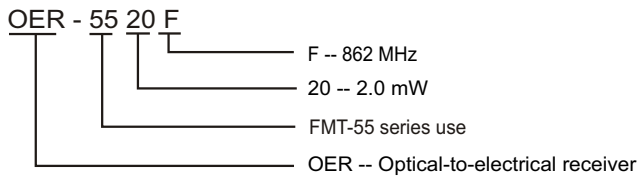
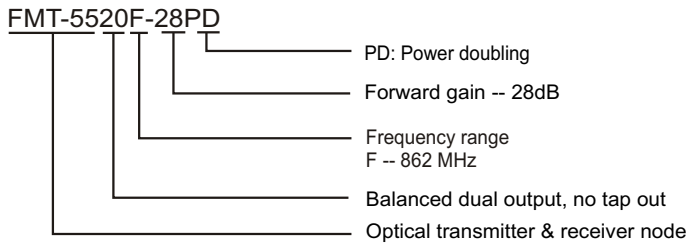
Trunk Line Optical Node with Forward Balanced Dual Output

General Specifications :

I/O Test Ports	dB	-20 ± 1 , to input & output level
Switching Power Supply Output Rating	A	1.5 @ 24 V DC
Surge Protection	V	7,000, 1.2 x 50 ms
Power Consumption & Requirement	W	42 @ 35 ~ 90 V DC; 30 ~ 90 V AC 47 ~ 63 Hz square or sinusoidal wave
Operating Temperature	°C	-40 ~ +60
Operating Humidity	%	5 ~ 95
Dimensions (with connectors)	mm	320(L) x 255(W) x 140(H)
Thread Ports for In/Out Conn.		5/8" - 24 NEF Female
Impedance	Ω	75
Net Weight	Kg	5.5

Specifications are subject to change without notice.

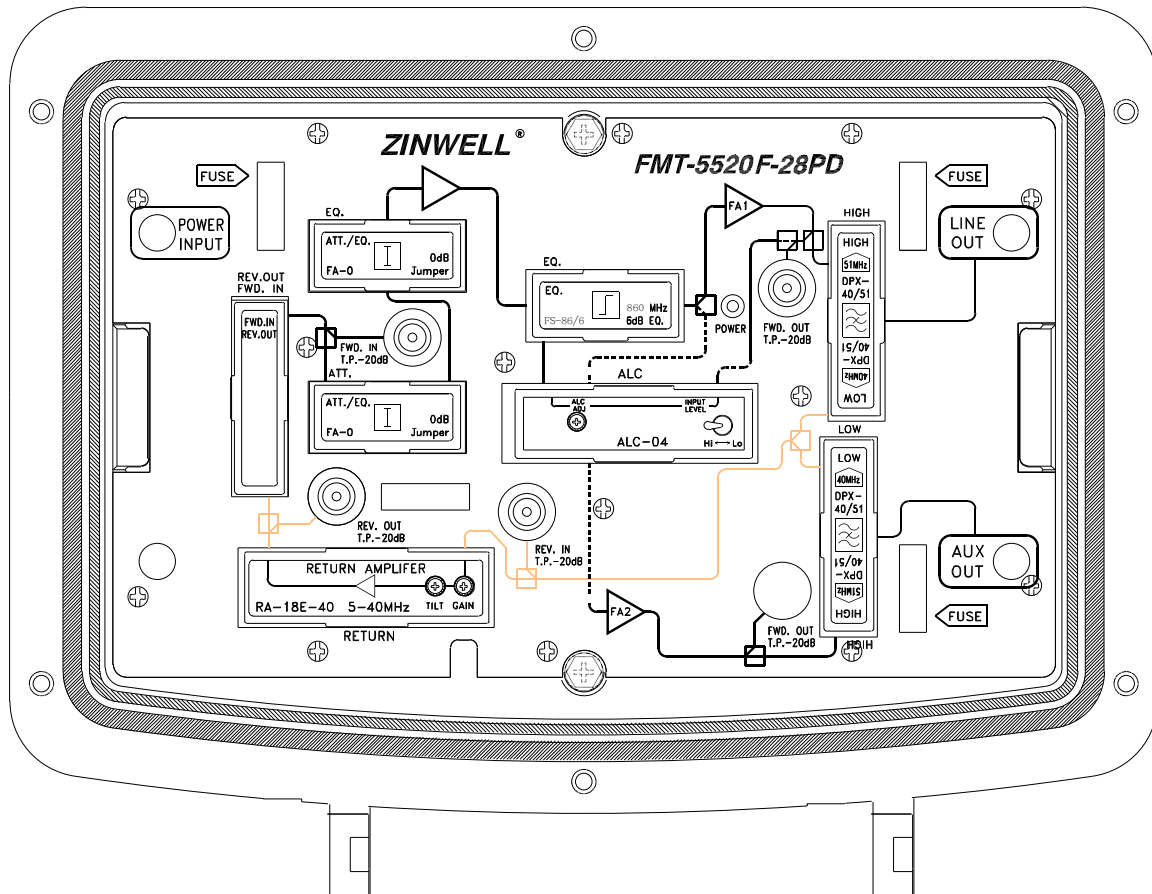
Model Number System :



Note : For assembly diagram, please refer to FMT-5510F.



Modules & Plug-in Position of FMT-5520F



Module	Type	Module Code	Module Description	Remark
Input EQ.	Fixed value	FA-0	0 ~ 1000 MHz, 0 dB Jumper	Standard
Attenuator	Fixed value	FA-0, 1, 2 ~ 10	Fixed value pad	
	Adjustable	MA-18	0 ~ 18 dB adj. attenuator	
Output EQ.	Fixed value	FA-0	0 ~ 1000 MHz, 0dB Jumper	
		FS-86/3, 6, 8, 9, 11, 12, 14, 16, 17, 19	860 MHz fixed value input EQ.	
ALC		ALC-04	± 4 dB Automatic Level Control	
Diplexer		DPX-30/47	5 ~ 30 MHz & 47 ~ 862 MHz Split	
		DPX-40/51	5 ~ 40 MHz & 51 ~ 862 MHz Split	
		DPX-42/54	5 ~ 42 MHz & 54 ~ 862 MHz Split	
		DPX-55/70	5 ~ 55 MHz & 70 ~ 862 MHz Split	
		DPX-65/84	5 ~ 65 MHz & 84 ~ 862 MHz Split	
Reverse		RB-J0	0 ~ 1000 MHz, 0 dB Jumper	
		RA-18E-30 (30A)	5 ~ 30 MHz 18 dB Gain	
		RA-18E-40 (A)	5 ~ 40 MHz 18 dB Gain	
		RA-18E-42A	5 ~ 42 MHz 18 dB Gain	
		RA-18E-55 (55A)	5 ~ 55 MHz 18 dB Gain	
		RA-18E-65 (65A)	5 ~ 65 MHz 18 dB Gain	

* Standard: module will be included with shipment

Please see the detailed specifications of plug-in modules from Zinwell's catalog.