

TELESTE AC 810

1.2 GHZ OPTICAL NODE

AC810 is a dual active output node designed for FTTLA solutions.

- DOCSIS 3.1 ready: 204/1218 MHz
- GaN HEMT and GaAs pHEMT technology in use
- Remote power supply with PFC
- Optional 3rd output port
- Optimised fibre and splice organizer in the lid
- Efficient surge and ESD protection
- FP, DFB and CWDM upstream laser options
- Integrated performance monitoring
- Integrated microcontroller enabling true plug-and-play installation: OLC function with temperature compensation, optical input power measurement and local alarm with led, RF power measurement for both outputs and local alarm with led, optical transmitter laser current measurement, supply voltage measurement, temperature measurement and all alarms and & measurement values are transmitted to headend

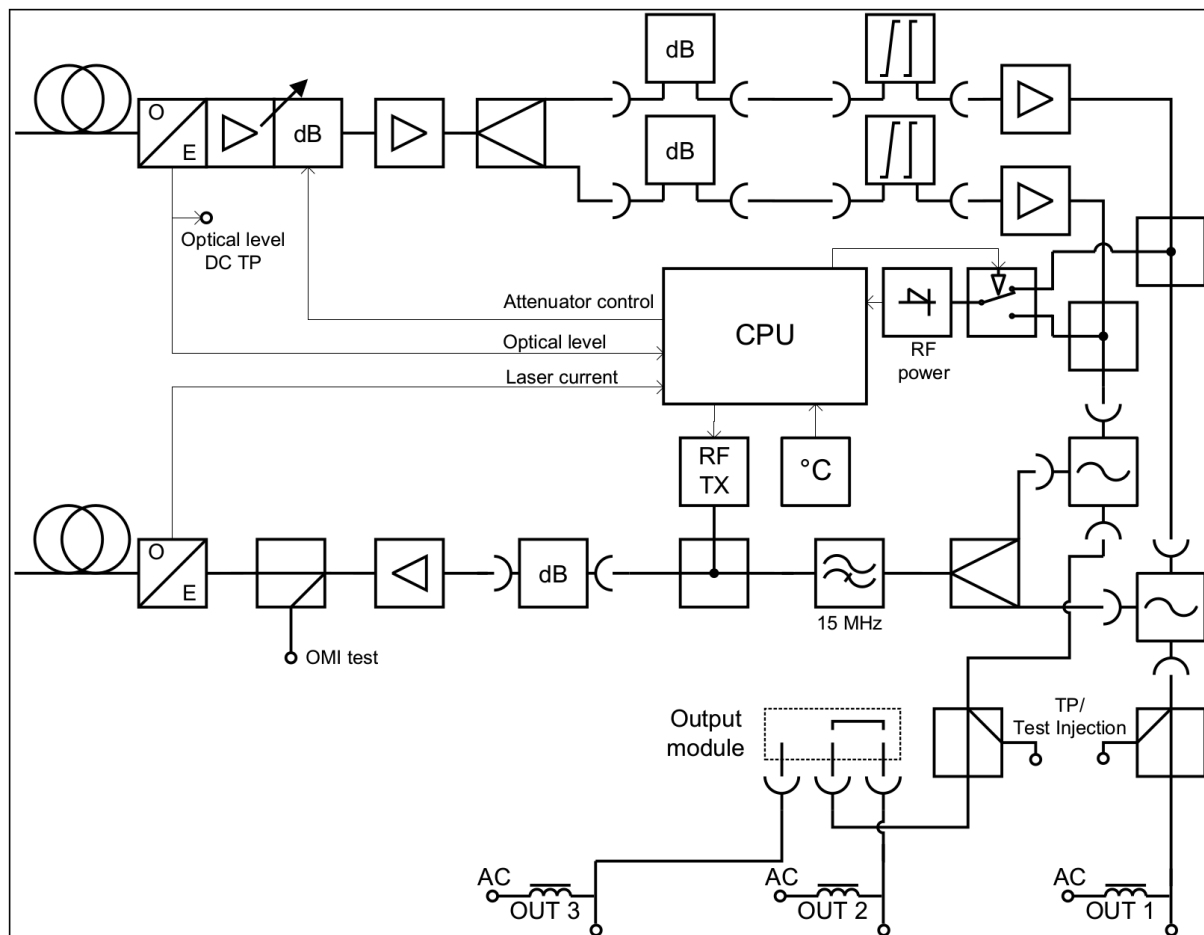


SPECIFICATIONS

DOWNSTREAM SIGNAL PATH		
Light wavelength	nm	1290...1600
Optical input power range	dBm	-8...-2
Frequency range	MHz	85...1218
Return loss	dB	18
Gain limited output level	dBμV	2 x 117.5
OLC control range	dB	12
Gain adjustment	dB	20
Mid-stage slope	dB	14
Flatness	dB	±0.4
Test point	dB	-20
Transponder connection	dB	-19
Noise current density	pA/√Hz	6.0
Umax(112 QAM channels) @ 1.0 GHz	dBμV	111.5
Umax(138 QAM channels) @ 1.2 GHz	dBμV	108.5
CTB 41 channels	dBμV	116.0
CSO 41 channels	dBμV	116.0
UPSTREAM SIGNAL PATH		
Frequency range	MHz	5...204
Return loss	dB	18 @ f > 15 MHz
Ingress switching	dB	0 / -6 / < -45
OMI TP	dB	-10
CINR	dB	> 48
Filtering, high pass	MHz	15
DATA TRANSMITTER		
Data carrier frequency	MHz	10.7
Modulation method		FSK, 38400 bps
Channel bandwidth	MHz	0.4
Transmitter level	dBμV	60
MEASUREMENTS		
Optical power measurement inaccuracy	dBm	< 0.5
RF output power measurement inaccuracy	dB	< 2
Temperature measurement inaccuracy	°C	< 2

GENERAL		
Power consumption (65 & 90 / 230 VAC)	W	36.0 / 38 W
Supply voltage AC	V	27...65 / 40...90 / 205...255
Maximum current feed through	A	7.0 / port
Hum modulation	dB	70
Optical connectors		SC/APC 8 degrees
Output connectors		5/8" or 3.5/12" (PG11 hole at housing)
Test point connectors		F female
Dimensions (h x w x d)	mm	245 x 255 x 145
Weight	kg	4.5
Operating temperature	°C	-40...+55
Class of enclosure		IP 54
EMC		EN50083-2
ESD	kV	4
Surge	kV	6 (EN 60728-3)

BLOCK DIAGRAM



ORDERING INFORMATION

AC810 configuration map

	1-			2-			3-	4-	5-			6-	7-	8-			9-
	1	2	3	1	2	3	1	1	1	3	1	1	1	2	3	1	
AC810				-			-	-				-	-				-

1-1 Platform type
B Standard 1.2 GHz
1-2 Power supply
A Local powering, euro plug (230 VAC)
B Remote powering with cable clamp (65 VAC)
C Remote powering with cable clamp (90 VAC)
H <input checked="" type="checkbox"/> Customer specific option 1
1-3 Fiber organizing
C <input checked="" type="checkbox"/> Standard fibre organizer (optical input at lid)
D <input checked="" type="checkbox"/> AC800 FTTLA Upgrade kit (No lid+fibre organizer incl.)

2-1 Output 1 connection (first from right)
A PG11
B 5/8"
C IEC
D <input checked="" type="checkbox"/> 3.5/12
E F

2-2 Output 2 connection
A PG11
B 5/8"
C IEC
D <input checked="" type="checkbox"/> 3.5/12
E F

2-3 Output 3 connection (first from left)
A PG11
B 5/8"
C IEC
D <input checked="" type="checkbox"/> 3.5/12
E F
X None (closed port)

3-1 Reserved for future
X None

4-1 Diplexer filters
A 65/85 MHz (2 x CXF065)
B 85/105 MHz (2 x CXF085)
C 204/258 MHz (2 x CXF204)
X None

5-1 Return path transmitter (+ 3 dBm)
<input checked="" type="checkbox"/> 40 FP 1310 nm (+1 dBm)
DFB 1310 nm
CWDM 1450 nm
<input checked="" type="checkbox"/> 47 CWDM 1470 nm
<input checked="" type="checkbox"/> 49 CWDM 1490 nm
<input checked="" type="checkbox"/> 51 CWDM 1510 nm
<input checked="" type="checkbox"/> 53 CWDM 1530 nm
CWDM 1550 nm
<input checked="" type="checkbox"/> 57 CWDM 1570 nm
<input checked="" type="checkbox"/> 59 CWDM 1590 nm
<input checked="" type="checkbox"/> 61 CWDM 1610 nm
5-3 Optical connectors
D SC/APC, 8 deg.

6-1 Optical filter
F1 1551 add / drop filter, SC/APC 8 deg.
XX None

7-1 Reserved for future
X None

8-1 Forward path mid-stage plugs
A 2 x JDA903 + 2 x TNE020 (1.2GHz)
B <input checked="" type="checkbox"/> 2 x JDA901 + 2 x TFE820 (862MHZ)
C <input checked="" type="checkbox"/> 2 x JDA901
X None

8-2 Return path input plug
A JDA900

8-3 Output 2 splitter
A 0 dB (AC6120)
B 2-way splitter (AC6124)
X None

9-1 Reserved for future
X None

DOC0022130, Rev013