



# Dual input 16-way Time Frequency Distribution Amplifier / Splitter for 10 MHz, PPS and any IRIG time code. With RF signal detection & output gain control

### Typical applications:

- Mission critical 10MHz reference signal and timecode distribution for communication systems, satellite earth stations, test facilities and engineering

### System Flexibility

- ✓ **Timecode and Frequency in same chassis** IRIG / 10MHz / PPS selectable modes

### System Control


-  **Local Control & monitoring**  
Intuitive user control via high definition capacitive LCD touchscreen.

### System Resilience


-  **Dual redundant Hot-swap PSUs** shared with other Genus products for easy spares provisioning



### System Resilience

-  **Dual inputs** for enhanced resilience. Auto switchover function.

### System Control

-  **Variable gain per output** to meet user system needs. **RF level monitoring** of all inputs and outputs - with user selectable thresholds and alarms.

### System Security

-  **Secure** via https and SNMPv3

### System Management

-  **Control & monitoring** remotely via RJ45 Ethernet port with SNMP, web browser interface.



**Technical specifications and operating parameters**

RF Parameters			
Capacity	16-way Splitter		
Number of inputs	2	Dual input 1 or 2 selectable or auto mode based on input signal presence	
Number of outputs	16		
Switchable modes	IRIG (IRIG AM & IRIG DC formats apply)		
	1PPS—1MPPS		
	10 MHz		
10 MHz Operating Frequency			
Gain Adjustment Range (software selectable)	Low Gain Mode	-10 to 0 dB in 1 dB steps	Individually adjustable per output
	High Gain Mode	-2 to +8 dB in 1 dB steps	
Return Loss	Typical	20 dB	
	Minimum	16 dB	
Amplifier Redundancy	Dual redundant amplifier input stage amplifiers only. Hot or cold standby, 1+1 redundancy with auto switchover based on amplifier current monitoring.		
Isolation	>85 dB	Between any RF ports	
Min/Max Operating Input/output Level	+15 dBm (1V <sub>rms</sub> )		
Additive SSB Phase Noise	1 Hz 10 Hz 100 Hz 1 kHz 10 kHz+ 100 kHz	-125 dBc -135 dBc -135 dBc -145 dBc -155 dBc -160 dBc	At +15 dBm Output @ unity gain
Spurious Signals	< -80 dBc		
Harmonics	< -40 dBc		
RF Detection Limits	-10dBm to +16dBm ±1.5dB		
Power			
AC Power	100-240Vac 50/60 Hz	Dual IEC INLET C14 Fused (L+N) 2A Used T2A, 250V Ceramic 5x20mm	
AC Consumption	<50W	At steady state	
PSU	Dual redundant & alarmed	Diode OR. Hot swap	
Physical			
Input & output ports	50Ω BNC, 50Ω SMA		
Dimensions	1U high x 600mm deep x 19" wide		
Weight	<10 Kg		
Colour	RAL9003-White (semi-matte)		

Pulse/DC IRIG		
Frequency	1PPS to 1MPPS	
Input Level	0-6V pp	Low detection threshold 200mV or less
Output Level	5V peak nominal	High: >4.5V. Low: <0.5V
Detection voltage threshold	0.2V to 4.0V user settable in 0.1V steps	
Duty Cycle	0% to 100%	Output signal presence detection valid for duty cycles 1% and above.
Rise Time	<20ns	(Measured between low and high thresholds)
Fall time	<20ns	
Jitter	<200ps RMS	
Skew	<±3ns (output to output)	

AM IRIG Time Code	
Modulation Frequency	Up to 1MHz
Level	0-6V pp
Gain	Unity Gain
Code format	Any IRIG format

System Control		
Local Control & Monitoring	LCD capacitive touchscreen via front panel	
Remote Control & Monitoring	RJ45 port with 10baseT/100baseTX, ETL TCP/IP Protocol. SNMP. Built in web server.	
Monitoring Functions	Input and Outputs signal presence. Amplifier. PSUs	Controlled by Ethernet
Alarms	PSU, amplifiers and signal status. Full status & alarms also available via the Ethernet interface or front HMI	
Security	HTTPS & SNMPv3	

Environmental		
Operating Temperature	0 to 45°C	
Location	Indoor use only	
Storage Temperature	-20°C to +75°C	
Humidity	20 to 90% non-condensing	Relative humidity
Altitude (operational)	2,000m AMSL (above mean sea level)	
Altitude (storage)	8,000m AMSL (above mean sea level)	
MTTR	20 mins. 15 mins to retrieve spare and 5 mins to replace.	
MTBF	Chassis & CPU >250,000 hrs. Module >110,000 hrs	

Note 1: The specification is subject to regular reviews and will be updated from time to time as part of our continuing product development and improved spec accuracy.

Note 2: Operation beyond the quoted limits stated above may cause instantaneous and permanent damage.



Esatcom Inc.  
www.esatcom.com  
Tel: 718.276.0800  
Email: sales@esatcom.com

