

SYNCHRONIZED DDS GENERATOR FOR ISOCHRONOUS CLOCKS



FEATURES

- GPS external reference PPS and 10MHz
- Internal reference by high precision, thermostatically controlled, oscillator 10MHz at 5.10⁻⁷
- 2 x Direct Digital Synthesizer with high resolution, up to 0.5μHz
- Multiple isochronous output clocks with start/stop mode
- Register for Universal Time (TU) and Countdown Time (TD)
- Enable to write directly on the VME the TU and TD
- Differential 7-bit bus for inter-boards synchronization



VxWorks



LynxOS



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DESCRIPTION

ICV 502

SPECIFICATIONS

(t = 25°C)

TYPE	SYNCHRONIZED GENERATOR FOR ISOCHRONOUS CLOCK
TIME REGISTERS	
- TUB Register	Time Universal Base: TUB 32-bit unsigned Binary coded 01.01.1970 origin and the time unit is the second
- TUM Register	Time Universal Milliseconds: TUM 32-bit unsigned binary coded. The time unit is the hundred microseconds (high resolution TUB)
- TD Register	Time Countdown Register This time is a signed 32-bit number in two complements. Time unit is one millisecond
GPS Module (option)	
- Acquisition of Time ref.	8 satellites on L1 (1575MHz) as time reference
- Frequency and time Distr.	1pps TTL output 10MHz sinewave output Time of Day output
- Control	Main status are available via a TTL interface (VME) Time scale UTC or GPS is programmable
- Frequency outputs (10MHz) (pps)	$\leq \pm 2 \times 10^{-12}$ $\pm 50\text{ns}$
- Medium term stability	3×10^{-10} / day
- Short term stability	5×10^{-11} @ 10ms
- Cold startup time	$\leq 20\text{mn}$
CLOCKS OUTPUTS	
- Internal oscillator	10MHz @ 5×10^{-7}
- Outputs	1 x pps 1 x 1KHz 1 x 10MHz 2 x Direct Digital Synthesizer Primary frequency 128MHz
- DDS Spec.	48-bit programmable frequency control Resolution 0,5µHz Parallel Control Interface for fast tuning
LOGIC OUTPUTS	
- Output type	LVDS
- Number	7-bit bus for inter boards synchronization
- Others	Gate output and trigger output
VME INTERFACE	
- Transfers	Standard A24 / D16 ; AM 39H, 3DH
POWER SUPPLY	
- Voltage	+ 5V / 3A
PRESENTATION	
- Format	VME double EUROPE / 4 Te
- Dimensions in mm	233.35 x 160
- Front panel connectors	3 "D" 50 pins female connectors
ENVIRONMENT	
- Operating temperature	- 20°C to + 70°C
- Storage temperature	- 25°C to + 85°C
- Relative humidity	90 % (without condensation)
EUROPEAN NORMS	
	EMC - EN 61326 - EN 55011 Class A CE Compliance ROHS - 2002/95/EC

HOW TO ORDER?

ICV 502

ACCESSORIES