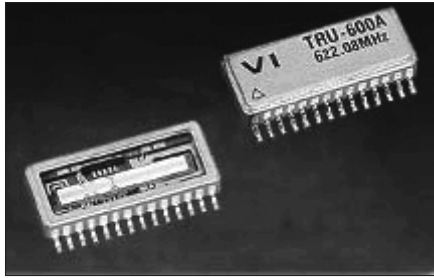


Clock and Data Recovery Products

TRU-600



Description:

The TRU-600 is a high frequency, SAW based Clock and Data Recovery Module. It offers very low jitter outputs, excellent stability and fast acquisition time.

Features:

- Output jitter typical 10 ps rms
- Low-cost modular solution
- Choice of data rates from 124.416 Mb/s to 622.08 Mb/s
- SONET/SDH compatible
- 100K ECL/PECL compatible inputs and outputs
- Low power consumption
- Quartz SAW filter technology
- External Clock Enable for LOS

Performance Characteristics

Parameter	Symbol	Min.	Typical	Max	Unit
Normal Clock Frequency ¹	f _o	124.416	-	622.08	MHz
Supply Current	I _{EE}	50	65	75	mA
Supply Voltage	V _{CC}	4.5	5	5.5	V
Data Input Voltage Low	V _{IL}	-1.81	-	-1.48	V
Data Input Voltage High	V _{IH}	-1.17	-	-0.88	V
Data/Clock Output Voltage Low ²	V _{OL}	-1.95	-	-1.63	V
Input Clock/Frequency Deviation ³	D _C	-200	-	200	ppm
Clock/Data Alignment ⁴	T _{CDA}	-100	-	100	ps
Data/Clock Output Rise Time ⁵	T _{TLH}	275	375	575	ps
Data/Clock Output Fall Time ⁵	T _{THS}	275	375	575	ps
Output Clock Duty Cycle	-	45	-	55	%
Acquisition Time ⁶	T _A	-	-	2	μs
Output Clock Random Jitter ⁷	J _C	-	10	-	ps rms
Power Consumption	P _d	-	325	-	mW
Storage Temperature	T _{stg}	-55		125	°C
Soldering Temperature/Duration	T _{LS}	-		240/10	°C/s
Supply Voltage	V _{CC} -V _{EE}	0		8.0	V

1. The TRU-600 meets all SONET/SDH requirements for jitter transfer and jitter tolerance mask characteristics at the standard SONET transmission rates.
2. Measured with respect to V_{CC} with load R_L of 50 ohms to V_{CC}-2v. ECL voltage levels are specified for dc measurement. An additional tolerance of 50 mV should be added for dynamic measurement.
3. Allowable input clock frequency variation with respect to the nominal clock frequency (F_N) over the entire operating temperature range.
4. Alignment of clock and data outputs.
5. Measured at 20% to 80% levels.
6. Time required to achieve valid data and clock outputs with an input transition density of at least 50%.
7. Measured with an input data pseudorandom word (PRW) 2²³-1.

Consult website for additional information.

CDR