



PAD	CONNECTION
1	Not connected or Enable / disable
2	Not connected
3	Ground
4	Output 1 (Q)
5	Output 2 (Q̄)
6	Supply

Features

- ▶ Complementary LVDS outputs
- ▶ Military temperature range -55+125°C option
- ▶ Low jitter
- ▶ Excellent shock & vibration resistance
- ▶ Optional tinned pads (Ag/Cu/Zn)

Enable / Disable Function

Input (pad 1)	Outputs (pads 4 & 5)
Open	Enabled
'1' level	Enabled
'0' level	No clock

Reaction time <1μs

Supply current

Freq / Supply	2.5V	3.3V
40.0MHz	5mA	10mA
100MHz	10mA	15mA
130MHz	20mA	25mA

Maximum values, no load.

Specifications

Parameters	Product	Option Codes
	MCSO2L	
Frequency range:	40.0 ~ 130MHz	
Supply voltage (V _{DD}):	+3.3V (±5%) +2.5V (±5%)	V W
Frequency stability*:	±100ppm ±50ppm tighter stabilities on request	T specify
Operating temperature range:	0 to +70°C -40 to +85°C -55 to +125°C	A B C
Storage temperature range:	-65 to +125°C	
Supply current:	See table	
Output:	LVDS	
Output load:	100Ω	
Logic levels (typ):	'0' level = +1.1V '1' level = +1.4V	
Start up time:	5ms max	
Waveform symmetry:	45:55 max @ 50%V _{DD}	
Jitter RMS:	0.3ps max (1.0kHz ~ 1.0MHz)	
Rise / fall times:	1ns max (20% - 80%)	
Enable / disable function:	None (pad 1 NC) Active (control via pad 1)	E
Phase noise (typ @ 100MHz, 3.3V):	-70dBc/Hz @ 10Hz -100dBc/Hz @ 100Hz -125dBc/Hz @ 1kHz -145dBc/Hz @ 10kHz -150dBc/Hz @ 100kHz	
Shock resistance:	5,000G, 0.3ms, ½ sine	
Vibration resistance:	20G rms 10.0 ~ 2,000Hz	
Soldering condition:	260°C, 10 sec max	
Terminations:	Gold plated pads Tinned Ag/Cu/Zn	T

■ Standard. □ Optional - Please specify required code(s) when ordering

* Frequency stability is inclusive of calibration @ 25°C, operating temperature range, supply voltage change and ageing over 10 years (1 year for stability option T).

Ordering Information

Product name + option codes + frequency

eg: **MCSO2L/CE 40.0MHz** 3.3V ±100ppm -55 to +125°C Enable / disable
MCSO2L/TB 100MHz 2.5V ±50ppm -40 to +85°C no E/D

Option code X (eg MCSO2L/X) denotes a custom specification.

◆ Packed in trays (128pcs/tray) or T&R 250 ~ 1,000pcs/reel

◆ A 47nF ceramic capacitor must be connected between GND and V_{DD}