

TPS002

50 GHz Prescaler

Features

- ◆ Divide by 2 and 4 Prescaler
- ◆ Up to 50 GHz Operation
- ◆ Differential or Single Ended Input
- ◆ 50Ω Single Ended Impedance
- ◆ Differential Output
- ◆ Single Power Supply: +3.3V
- ◆ 4mm x 4mm QFN package
- ◆ Power Dissipation from 285 to 450 mW
- ◆ Output >700mVpp Differential
- ◆ Adjustable Output Signal Amplitude
- ◆ Minimum Input Power >-20dBm

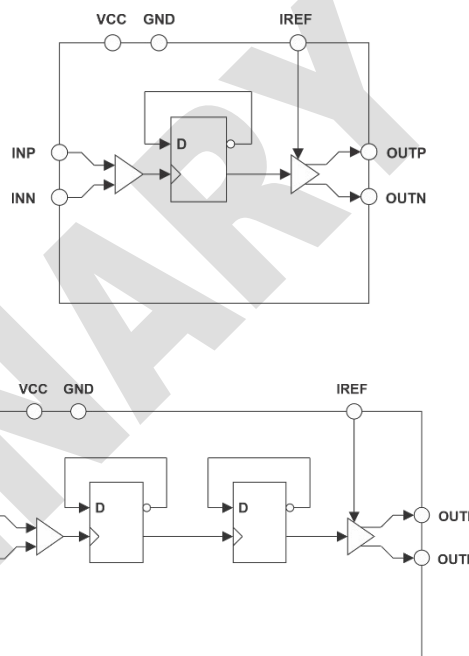


Figure 1 - Functional Block Diagram (TPS002-2 on Top, TPS002-4 on the bottom).

Product Description

The differential-to-differential prescaler is a fixed divider block with a wide operating range. There are two versions of the prescaler. TPS002-2 has

one divide by two prescaler; TPS002-4 has one divide by four prescaler. Both versions can operate up to 50 GHz.

Ordering information

PART NUMBER	DESCRIPTION
TPS002-2-QN	50 GHz Divide by 2 Prescaler
TPS002-4-QN	50 GHz Divide by 4 Prescaler
EVTPS002-X	Evaluation Board

CAUTION
DEVICE SUSCEPTIBLE TO
DAMAGE BY ELECTROSTATIC
DISCHARGE (ESD)



TPS002-X Pin Description and Pin Out (20 I/O QFN Package)

P/I/O	PIN	NUM.	NAME	FUNCTION
P	1,3,5,6,8,11,13,15,18,20, bottom pad	11	GND	Power Supply Ground
P	7,19	2	VCC	Positive Power Supply
I	2	1	INP	Prescaler Input
I	4	1	INN	
O	14	1	OUTP	Prescaler Output
O	12	1	OUTN	
I	16	1	IREF	Output Amplitude Control (Tie to VCC for Max Amplitude)
-	9,10,17	3	NC	Reserved

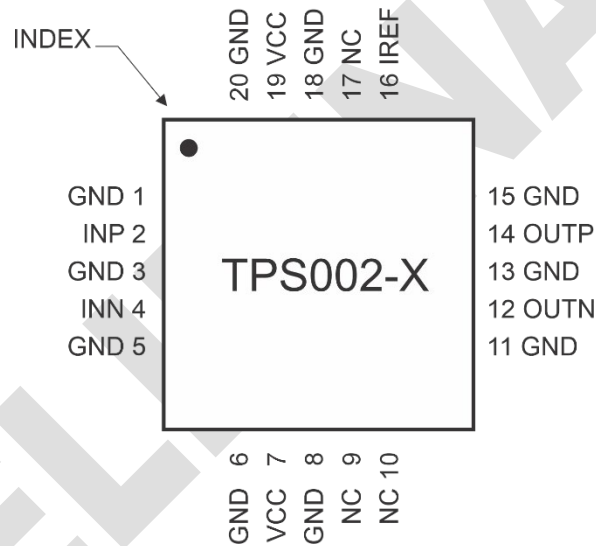


Figure 2 – TPS002-X pinout (top view) 20 I/O QFN package.

Package Information -QN

The package is an organic laminate 20 IO QFN.

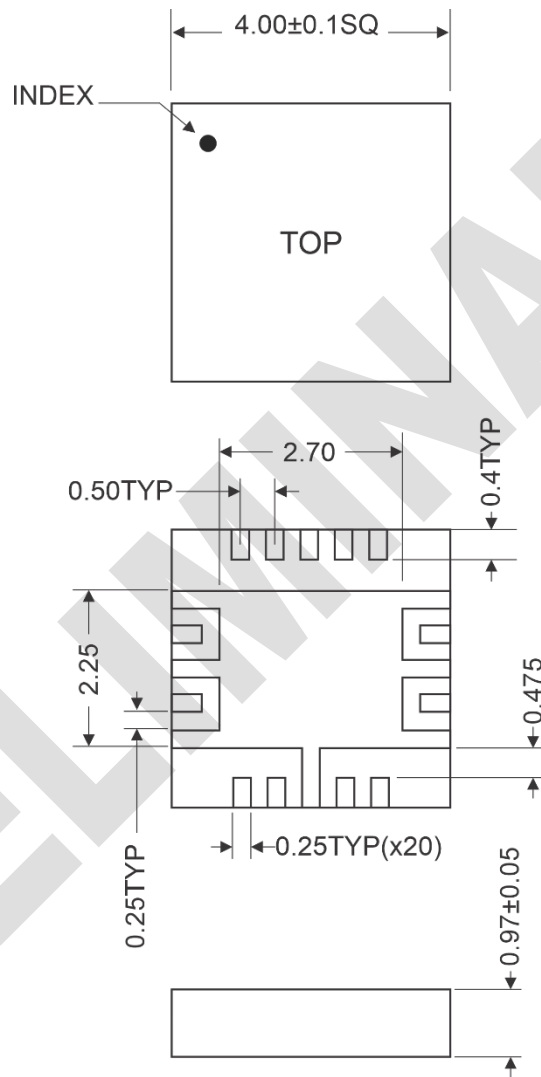


Figure 5 – TPS002-X-QN package outline, dimensions in mm.