



Low phase noise

Frequency divider

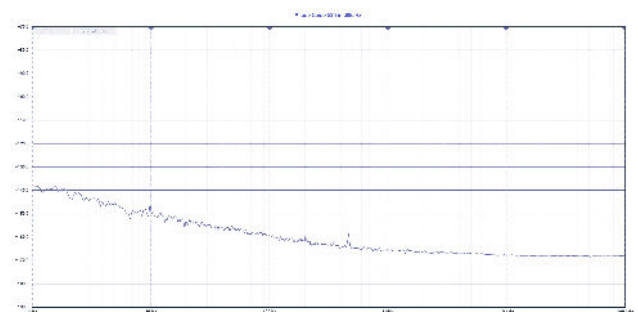
Product features

- 1-way 10 MHz input
- 2 sine wave outputs each at 5MHz and 1MHz
- Ultra low phase noise $< -135\text{dBc}/\text{Hz}@1\text{Hz}$
- $+12\sim+15\text{VDC}$ power supply

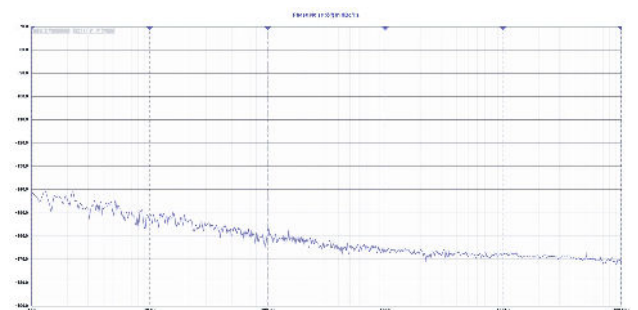
Product profile

TFD 10-5 low noise frequency divider is an ultra-low phase noise frequency divider, with a built-in unique frequency divider and low noise signal distributor, with 5M and 1M output, which is suitable for frequency division operation as high-stable 10 MHz signals such as hydrogen clock and cesium clock. This frequency divider adopts our BDSTAR TIME Technology' s standard package and interface, and can be installed in various ways.

Typical curve



The 5 MHz output phase noise



The 1 MHz output phase noise



National
defense



Aerospace



Satellite
communication



Test measuring
equipment



Earth
station



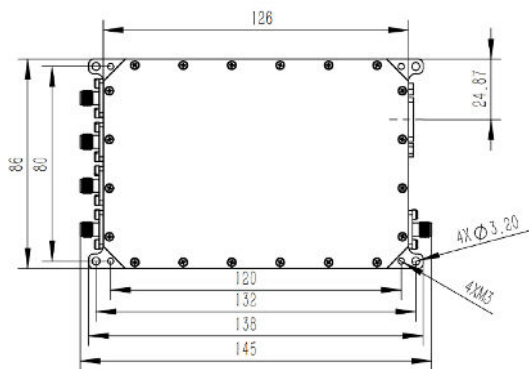
Point-to-point
wireless
communication



RF microwave
circuit design

Test Item		Technical Indicators
Input frequency		10MHz
Input power		+5~+13dBm
Output frequency		5MHz and 1MHz 2 ways each, 50Ω, ≥ 8dBm
Additional frequency stability	1s	$\leq 5 \times 10^{-14}$
	1000s	$\leq 8 \times 10^{-15}$
Additional phase noise	1Hz	$\leq -135\text{dBc/Hz}$
	10Hz	$\leq -145\text{dBc/Hz}$
	100Hz	$\leq -155\text{ dBc/Hz}$
	1kHz	$\leq -163\text{ dBc/Hz}$
	10kHz	$\leq -165\text{dBc/Hz}$
Harmonic clutter		harmonic $\leq -30\text{dBc}$, clutter $\leq -80\text{dBc}$
Working temperature	Bottom plate temperature	-20°C ~+70°C
Storage temperature		-40°C ~+85°C
Power supply	±4%	+12V~+15V
Rate of work		$\leq 3\text{W}$
External dimension	Body size	126mm×86mm×19mm
	Maximum size	138mm×86mm×19mm
Weight		$\leq 300\text{g}$

External Dimension



Unit: mm



Interface Definition (DSUB9, needle) :

- PIN 1: The Ground
- PIN 6: Power supply +12~+15V
- Other: Internal testing. No wiring.