



# 10 MHz DISTRIBUTION AMPLIFIER

With internal 0.28 ppm VCXO

## SPECIFICATIONS

- 10 Output ports total: 5x LVCMOS digital square-wave + 5x Sine-wave Isolated and individually band-pass filtered
- 50 Ohm ports
- External input (female SMA connector) for a reference signal applied at -18...+10 dBm.
- Internal 0.28 ppm TCXO factory trimmed to 10.000 MHz.
- Disable output manual switch
- Disable output ports sync input (3.3V HIGH to disable)
- Dimensions: 100x100x50 mm
- DC Power: 5-15V – 200 mA max
- Output power: +7 dBm (+/-1dB)
- Sinewave output ports harmonics attenuation: >60 dB for the 2nd harmonic (20 MHz) and > 73 dB for the 3rd harmonic (30 MHz)

Webpage:

<https://www.sv1afn.com/en/gnss-gps/10-mhz-distribution-amplifier.html>

## SV1AFN.COM

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Anavyssos 19013  
Greece

VAT no. EL 042237030

Chamber Reg. No 171467

Hellenic Business Registry reg. number:  
060488603000

DUNS number: 524163138

## DESCRIPTION

This amplifier has one input port and ten output ports. It is used to share a 10 MHz reference signal with up to 10 other instruments in a lab or inside a system, to synchronize their timing or frequency reference.

In addition, it has an internal 0.28 ppm 10 MHz VCXO that can be used if an external input signal is not available. The internal oscillator can be selected with a switch on the rear panel. An internal trimmer can correct its frequency if ever needed or aged.

5 of the 10 output ports provide digital LVCMOS 3.3V square wave signals and 5 provide sinewave, individually band-pass filtered and isolated to prevent ground-loops.

## USAGE

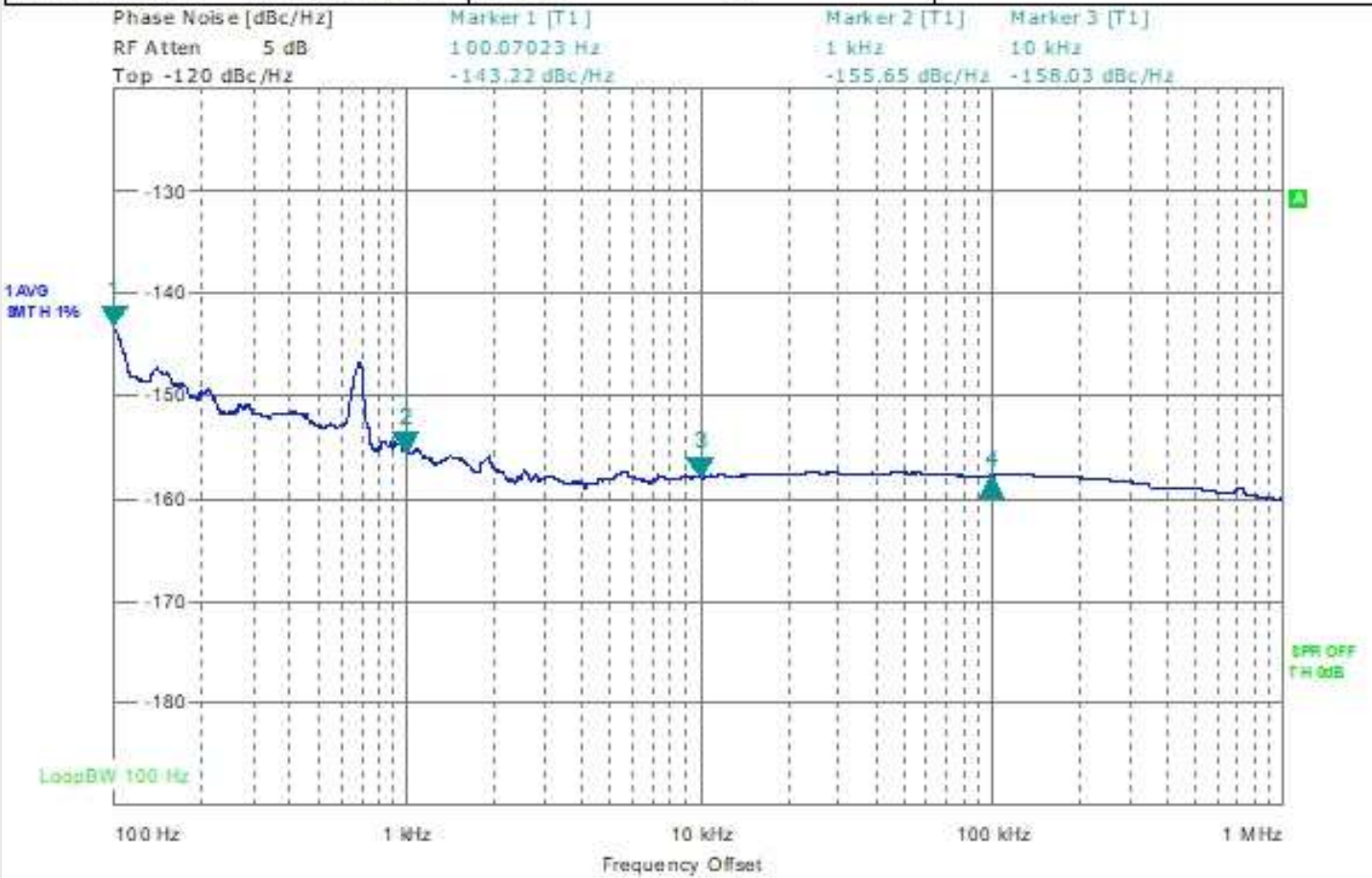
The distributor is based on the IDT 5PB1110PGG LVCMOS clock buffer chip which works up to 200 MHz and offers very low additive jitter of less than 50 fs and very low pin-to-pin skew of 50 ps.

Some instruments, such as frequency counters or arbitrary function generators, may prefer a square wave signal, while spectrum analyzers or receivers may prefer a sinewave signal. Check their datasheets to be sure.





R&S FSUP 8 Signal Source Analyzer				LOCKED
Settings		Residual Noise [T2 w/o spurs]		Spur List
Signal Frequency:	10.000000 MHz	...		
Signal Level:	10.49 dBm	Residual PM	...	
Cross Corr Mode	Harmonic 1	Residual FM	...	
Internal Ref Tuned	Internal Phase Det	RMS Jitter	...	

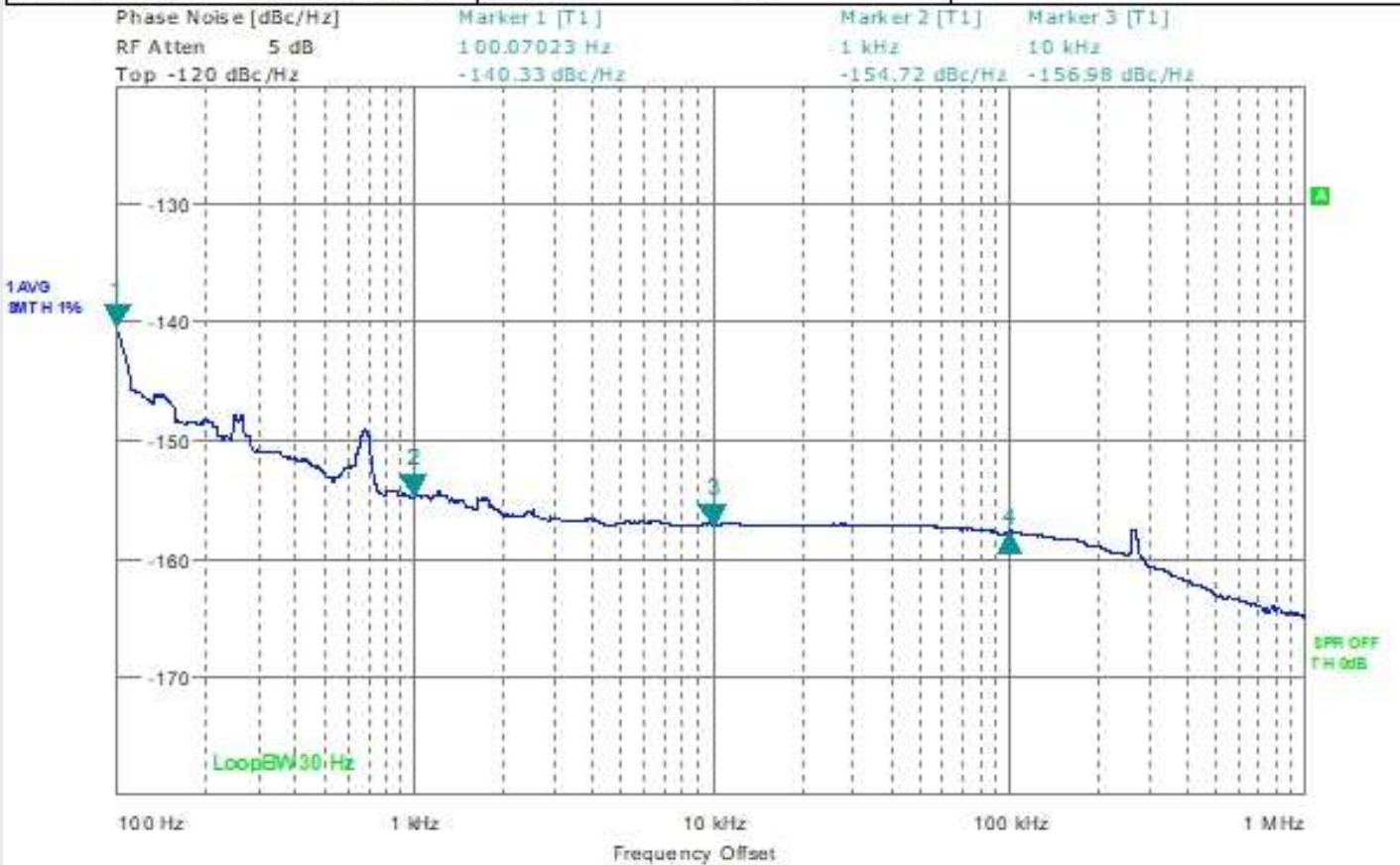


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Settings		Residual Noise [T2 w/o spurs]		Spur List	
Signal Frequency:	10.000000 MHz	...			
Signal Level:	8.38 dBm	Residual PM		...	
Cross Corr Mode	Harmonic 1	Residual FM		...	
Internal Ref Tuned	Internal Phase Det	RMS Jitter		...	



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