

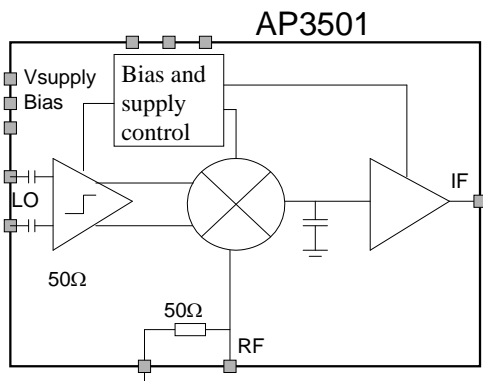
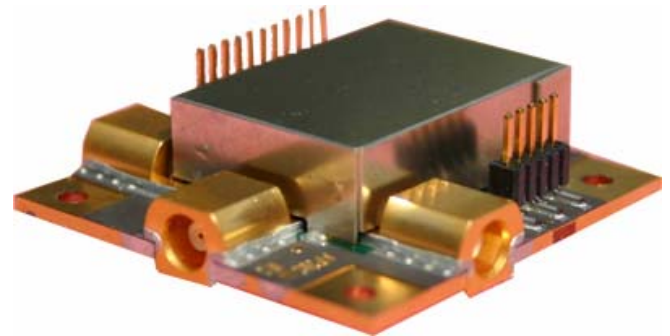
**Product Brief**

**35 GHz Bandwidth Sampler AP3501**

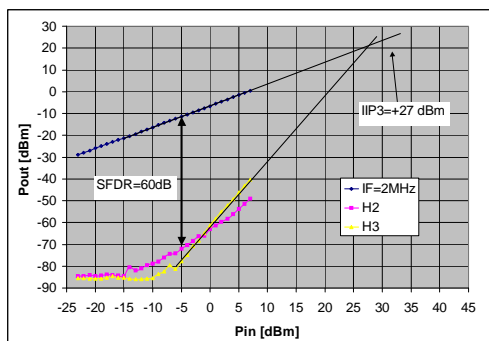
The AnaPico AP3501 is a highly integrated 35 GHz bandwidth sampler featuring up to 1 GSamples/s sampling rate and very low additive jitter.

Driven by standard ECL logic, the AP3501 accepts DC coupled RF signals over a -1 to +1 V dynamic range.

The AP3501 is available as a compact module and enables high-speed sampling with minimum additional components.



**AP3501 Block Diagram**



**Intermodulation Performance**

**Features**

- High Integration (strobe pulse generation, pre- post amplification)
- ECL-compatible strobe input signal
- Memory-free sampling with Reset after each sample

**Specifications**

- 35 GHz usable bandwidth
- $\pm 1$  V linear input range
- 60 dB SFDR
- High sampling rates
- $< 0.5$  mVrms noise
- Power consumption:  $< 2$  W

**Applications**

- Equivalent time sampling
- Down-sampling receivers
- Sampling frequency converters

## Key Specifications

Parameter	Value	Notes
Input bandwidth	DC – 35 GHz	
Input voltage range	-1 V to +1V	
Conversion gain	0.75 V/V	sampling rate dependent
SFDR	60 dB	
Sampling rate	DC – 1000 MS/s	
Aperture jitter	< 100 fs (RMS)	
Output offset range	-1.5 V to +1.5V	
Output noise	0.5 mV (RMS)	Integrated over IF bandwidth
RF input impedance	50 $\Omega$	
VSWR	1.3	
IF output impedance	50 $\Omega$	
Latency	6 ns	
LO Strobe input	PECL	
Power consumption	2 W	