

DB140E

Manufacturer	Loughborough Sound Images Ltd Berkshire RG6 4UW England
Card	12 bit 10 MHz ADC
Type	DB140E
Hybrid	Analog Devices AD9005BKM
Clock	On board oscillator module or external clock
Input impedance	50 ohm
Coupling	DC
Input amplifier	Analog Devices AD9617 operational amplifier (G=8.6)
LP-fitter	Attenuation 0.716
Input rate	+/- 1.024 Vpp
Input limit	Do not exceed +/- 1.4 V from ground
Input bandwidth	30 MHz
Output	12 bit data, 2 control O/P strobe and RD_Data. O/P strobe is simply inversion of the clock signal to signify that sample is available and user has 10 ns to read data
Data format	12 bit binary 2's complement or sign extended to 24 bit binary 2's complement
Power Supply req.	+5V/300 mA, -5 V/50 mA, +15 V/50 mA, -15 V/50 mA

Converter hybrid specifications:

Resolution	12 bit
LSB weight	0.5 mV
Diff. nonlinearity	0.5 LSB
Integral -"-	1.0 LSB
No missing codes	Garanteed
Gain error	+/- 0.5 % FS
Offset error	+/- 4 mV Max +/- 15 mV
Input rate	+/-1.024 V Rin 1 k Ω
Input bandwidth	35 MHz
Output data delay	90 ns
Aperture delay	5 ns
Aperture uncertainty	10 ns
Transient response	120 ns
Overvoltage recovery	250 ns
Harmonic distortion	fin=540 kHz 2 Vpp 78 dBc fin=2.3 MHz 2 Vpp 72 dBc fin=4.3 MHz 2 Vpp 72 dBc
Signal to noise ratio	fin=540 kHz 2 Vpp 67 dBc fin=2.3 MHz 2 Vpp 65 dBc fin=4.3 MHz 2 Vpp 64 dBc
Two tone intermodulation	fin=2.2+2.3 MHz 75 dBc