Variable	Specification
Technology	TSMC CMOS 130 nm
Channels per	128
Input / Output pitch	$80\mu{ m m}$ / $140\mu{ m m}$
Total power dissipation	$< 768 \mathrm{mW}$
Radiation hardness	$0.3 \mathrm{MGy}$
Sensor input capacitance	$1.6-12\mathrm{pF}$
Noise	$\sim 1000  e^{-}$ @10 pF + 50 $e^{-}$ /pF
Maximum cross-talk	Less than $5\%$ between channels
Signal polarity	Both electron and hole collection
Dynamic range	Input charge up to $\sim 30000e^-$
Linearity	Within 5% over dynamic range
Pulse shape and tail	$T_{peak} \sim 25 \mathrm{ns}$ , amplitude after $2 \times T_{peak} < 5\%$ of peak
Gain uniformity	Uniformity across channels within $\sim 5\%$
ADC bits	6 bits (5 bits for each polarity)
ADC sampling rate	40 MHz
functions	Pedestal and MCM subtraction, zero suppression
Output formats	Non-zero suppressed, zero suppressed
Calibration modes	Analogue test pulses, digital data loading
Output serialiser	Three to five serial e-links, at 320 Mbit/s
Slow controls interface	
Fast digital signals interface	Differential, SLVS