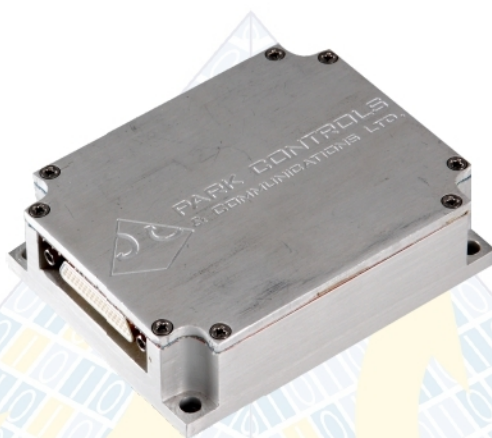




PARK PCM-32S is an extremely compact PCM encoder capable of handling thirty two single ended analog input channels and three RS-422 asynchronous serial communication ports. It can encode the analog channel input data and the data received on asynchronous communication channels into a user defined PCM stream structure. The PCM-32S encoder can handle data rates up to 115 Kbps on the RS-422 serial communication ports and employs a very high speed (500 Kilo samples per second) 12-bit ADC to handle the analog inputs. The unit operates on a single $5.75\text{ V} \pm 0.25\text{V}$ power supply and dissipates less than one watt of power. It can generate PCM bit streams up to 2 Mbps. The PCM frame format, the PCM bit rate and the commutation schemes required can be downloaded into the configuration flash of the unit from the parallel port of a PC, using the configuration software provided with the unit. Its compact size, rugged construction, field configurability and low power consumption make it ideally suited for on board applications.



Specifications:

PCM Output:

Bit rate:	100 bps to 2.0 Mbps rates (Programmable)
Reference clock:	Crystal oscillator (internal frequency synthesizer)
Data encoding:	Bi Φ -L, NRZ-L
PCM output level:	$\pm 2.0\text{ V}$ peak to Peak into $75\ \Omega$

PCM Frame Configuration:

Word length:	8 to 16 bits, programmable
Frame length:	10 to 4096 words, programmable
Frames/subframe:	1 to 256
Words/subframe:	4096 words maximum
SFID method:	Up / Down
SFID position:	Configurable
Sync length:	8 to 64 bits, programmable
Parity:	Odd, Even, None; programmable

Signal Inputs:

Analog:	32 (single-ended)
Digital:	3 (RS-422)

Analog Input Characteristics:

Input voltage range:	Unipolar 0 to +5V
Input capacitance:	Approx. 47 pF in track mode, 10 pF in hold mode
ADC resolution:	12 bits
ADC conversion time:	2 micro seconds
ADC linearity:	± 1 bit
Missing codes:	None