

Radar Input Cards – Feature Comparison Chart

CWCEC-Cambridge, V1.1

	Virgo++ (870XXX)	Virgo PCI (71000X)	Osprey (76100X)	Osiris (61700X)
Status	Obsolete	Mature	Production	Final Development
Form-factor	6U VME	Full-length PCI	PMC and half-length PCI	PMC and half-length PCI
Sample rate	40MHz	50MHz	50MHz	50MHz
Sample resolution	8 bits	8 bits	10 bits over full-scale input	10 bits over full-scale input
Max. PRF	4.4kHz	16 kHz	200 kHz	200khz
Law table	8-bit to 4-bit	8-bit to 8-bit	10-bit to 8-bit	10-bit to 8-bit
Correlation in azimuth	Highest-wins or average	Recursive averaging (switchable)	Yes	Highest/Lowest wins or IIR/FIR average
Max. return length	4k	4k (710000/5/6/7), 64k (710004)	4k	16k
Range offset & gate	Gate only	Offset only	Offset & gate	Offset & gate
Adaptive threshold	Yes	No	No	No (yes if required – consult factory)
Input channels V = Analogue A = Azimuth S = Sync/trigger D = Digital	87000X: V + A + S 87020X: (1 of 3)x(V+A+S)+4D	710000: (1 of 3)x(V+A+S) 710005: (1 of 3)x(V+A+S) 710007: (1 of 3)x(V+A+S) 710006: 3x(A+S) + 8xD	MIX(3xV+D)+S+A	2xV, 2xS, 2xA, 8xD
Output channels	1	1	1	2 Each output channel is a programmable MIX of the and D inputs
Auxiliary video input	Yes	Yes	No	No
External clock	No	Yes	Yes	Yes
Filter	High-pass	High-pass	High and low-pass	High and low-pass (digital)
Dartboard	Yes	Yes	No	Gain/Offset with Range
Repeated azimuth detection	Yes	Yes (except 710004)	No	No
Missing azimuth fill	Up to two	No	No	No
RADDs capability	No	DB available	Yes	Yes
Synchro capability	No	DB available	DB available on PCI version	Available as option on PCI version only, or with separate VME synchro decoder card
Parallel azimuth	No	No	Yes	Yes
Azimuth limit	2k or 4k	2k or 4k (repeat detection) 64k (no repeat detection)	64k	64k
Azimuth offset & gate	Yes	No	No	No
ACP divider	Yes	Yes	No (in S/W)	Yes
Output format	SDC link	Shared memory via PCI	Shared memory via PCI, with onboard CPU	Dual port memory via PCI
Interrupts	Various azimuth conditions	None	Software-defined	After X returns or buffer full (X = 1 to 32)
Internal test pattern	Yes	Yes	CPU generated in S/W	Yes
Test pattern outputs	Yes	Yes	No	No
Max. power consumption	42W	28W	11W	7W
Operating temperature	0 to +55°C	0 to +55°C	-20 to +65°C	-20 to +65°C (TB C)
Storage temperature	-40 to 75°C	-40 to 75°C	-40 to +100°C	-40 to +100°C
OS support		Windows NT/2k, Linux, Solaris 7 (x86)	Windows NT/2k, Linux, Solaris	Windows NT/2k, Linux, Solaris
Software	PARIS	RVP, PARIS, Board-support library, Metroview	RVP, PARIS, Metroview	RVP, Board-support library