

SERIES SEAFALCON/S

BASIC PERFORMANCE DATA		RT03-25	RT03-25/D	RT03-25/FD	RT03-50/FD				
TRANSMITTER	Type	Solid-state, except magnetron and STC limiter							
	Peak Power (nominal)	25 kW			50 kW				
	Transmit frequency	9375 MHz ± 30 MHz		9225 MHz ± 30 MHz	9230 MHz ± 30 MHz				
				9437 MHz ± 30 MHz	9470 MHz ± 30 MHz				
	Tx modes	1	2	3	4	1	2	3	4
	Pulse width (nominal)	50÷190 ns	200÷490 ns	500÷990 ns	1000÷1200 ns	50ns	200ns	600ns	1000ns
	Pulse repetition frequency (PRF)	3120÷4000 Hz	1475÷3008 Hz	785÷1450 Hz	650÷778 Hz	3000Hz	1970Hz	1030Hz	700Hz
	Programmability	Remote or local PW and PRF programming							
PRF staggering	± 6 % around the PRF								
Sector blanking	Ten individual sectors, settable in azimuth width from 1° to 359°, in one-degree increments, and in position relative to the 360° azimuth circle from 0° to 359°, in one-degree increments relative to Antenna Reset Pulse (ARP).								
RECEIVER	Type	Logarithmic, fully solid-state with low-noise front end							
	Dynamic range	> 100 dB		> 125 dB with STC limiter					
	Intermediate frequency	60 MHz							
	Overall noise figure	≤ 3.5 dB			≤ 4.5 dB				
	IF bandwidth versus corresponding pulse widths	Tx Mode		I.F. Bandwidth (MHz)					
		1		20					
		2		5					
3		2							
4		2							
Tuning	Automatic frequency tuning (AFC) and manual								
WAVEGUIDE COMPONENTS EMPLOYED	Circulator	Circulators network to increase system stability against tuning, V.S.W.R. and magnetron pulling influences							
	Front-end	Low noise, fully solid state integrated assembly							
INTERFACES	Azimuth inputs	Dual encoder interface with ARP=2048/4096/8192/16384 p.p.r. (selectable) on RS-422 differential communications links							
	Antenna motor control	Up to 4 contact closures to remotely control an external antenna supply unit							
	Polarization control (HVC antennas)	Up to 2 discrete output signals to remotely control an external antenna polarization network plus 1 status input (open collector)							
	Auxiliary contacts	4 contact closure outputs, 2 discrete inputs							
	Interface to external processor	<i>Standard analog format:</i> n. 2 separately adjustable video outputs (0÷5 V @ 75 Ω) n. 2 trigger outputs (+8 V @ 75 Ω) n. 3 ACP outputs (RS422, 4096 p.p.r., 130 Ω) n. 3 ARP outputs (RS422, 1 p.p.r., 130 Ω)		<i>Standard digital format:</i> n. 2 Ethernet links RJ45 10/100 Mb (FDDI also available) for control, status and pre-processed digitalized video outputs					
External safety switch	RF transmission disabling switch located on the antenna assembly								
ELECTRICAL POWER	Required supply	Self-switching 115 or 220Vac ± 10 % @ 50-60 Hz ± 5 %, single phase							
	Absorption	≤ 600 VA (nominal)			≤ 850 VA (nominal)				
PERFORMANCE	Redundancy	n.a.	Dual-redundant radar transceiver (hot/st.by)	Dual-redundant radar transceiver (hot/st.by) when set to single frequency mode					
	Diagnostics	Comprehensive built-in test equipment (BITE)							
	Antenna rotation speed	Acceptable rotation speeds of the antenna are from 10 to 60 r.p.m., inclusive							
ENVIRONMENT	Operating temperature range	AS per IEC-60945, ed. 4, protected							
	Operating relative humidity								
	Salinity								
	Vibration/Shock								
	Drip proof								
	EMI/EMC								
Safety									