ICARE™

A robust and high-power C-Band radar transponder contributing to trajectory tracking for aerial vehicles and space launchers

Competitive, high power and compact, Safran ICARE™ radar transponder is the most advanced C-Band European radar transponder for aerial and space applications. Its high power and its compacity make it suitable for integration in micro & mini launcher. It offers excellent performance and very high reliability under harsh conditions.



ICARE™ main characteristics		
SWaP	-	0,6 L / 1,1 kg
Electrical characteristics	Power supply voltage	From +24 V to +34 V, nominal +28 V
	Consumption	≤ 550 mA average without interrogation
Environments	Random Vibration	Up to 25g RMS
	Sinus Vibration	Up to 40 g peak/peak
	Pyro Chock	SRS from 20g to 4000g depending on the frequency
Interface	Power supply connector	6-pin circular socket from the 851 series (SOURIAU)
	Antenna connector	Female SMA type coaxial socket (RADIALL)
Reception Characteristics	Mode	Coded/uncoded mode
	Frequency range	[5450 MHz ; 5825 MHz]
	Minimum deviation from transmission frequency	50 MHz
	Permissible pulse width	From 0.25 µs to 5 µs
	Response sensitivity*	Up to : < -70dBm
	Recurrence frequency	10 Hz ≤ Fr ≤ 2600 Hz
	Maximum permissible power on reception*	Up to : + 20 dBm peak
Transmission Characteristics	Frequency range	[5400 MHz ; 5900 MHz]
	Variation in reception-transmission delay based on the level received*	≤ 50 ns
	Jitter*	≤ 50 ns
	Peak power on adapted load	≥ 400 W

* Performances may vary depending on the equipment mode and pulse width

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