



# SevenStar Electronics

## SkyTracer™

### S.705 Radar Tracking Transponder

- The **SkyTracer™ S.705 Radar Tracking Transponder** from **SevenStar Electronics Ltd** has been designed to achieve accurate and reliable tracking or secondary surveillance of objects using commercially available, low cost X-band radar sets
- It features an X-band radar receiver, and a **frequency-selectable, programmable** X-band transmitter (within the range 9.2-9.5GHz)
- It produces a clearly recognisable radar return ('paint') on the surveillance radar set
- It has been designed using commercial off the shelf (**COTS**) components, and is the result of many years experience in the specification, design and manufacture of marine radar transponders (**SARTs** – **Search And Rescue Transponders**) and related marine safety equipment. It brings together the ultimate in high-reliability design and modern manufacturing techniques
- Its **exceptionally low power consumption** and **small size** make it ideal for tracking objects such as drones and other UAVs without affecting their usable payload or performance
- Its **unique digital design** brings new levels of sophistication and programmability to suit varying needs, and also gives guaranteed lifetime performance, reduced component count and increased reliability



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SevenStar Electronics Ltd. is approved to  
BS EN ISO 9001:2000





## S.705 Tracking Transponder



### SkyTrace™

#### SPECIFICATIONS

- Frequency range: X-band, 9.2 to 9.5 GHz nom.
- Tx power: > 400mW (+26 dBm)
- Rx sensitivity: better than -37 dBm (>100ns)
- Typ. useful range up to 24nm
- Rx-Tx delay typ. 350ns
- Output pulse frequency programmable, 9.2-9.5GHz
- Output pulse duration programmable from 850ns
- Morse coded option available
- Swept output frequency available
- Single or multiple output pulse available
- Low current drain (8mA typ. standby)
- Ultra-slim (only 40mm thick!),
- Light-weight (only 190 gm!)
- Power consumption (standby): 8mA typ.
- Power consumption (triggered): 20mA typ. (single interrogating radar @ 1KHz prf, 850ns single o/p pulse)
- Non-Hazardous Battery pack available: type SevenStar S.701B.
- Body in high visibility yellow to BS4800/10E53
- Radar-transparent impact-modified HIPS case
- Indication: High-brightness LED on front face
- Temp range: Operating: -20/+55 degC
- Temp range: Storage: -30/+70 degC
- Waterproof to 10 metres, solvent-welded case
- Size: 235 x 80 x 40 mm. (9.2" x 3.2" x 1.6")



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Authorised agent:

Side view showing the 40mm slim profile

Also showing the optional non-hazardous battery pack

