

FEED-COMS-KU-TX-RX-SLP

The FEED-COMS-KU-TX-RX-SLP is designed to feed an offset reflector at Ku band mainly for telecom applications. It provides low spillover and therefore the feed offers low sidelobes level.

The design can be adjusted to fit in other reflector configurations. Furthermore, reflector antenna simulation results can be included.

Main Features

- Frequency range: 10.95-12.75 GHz & 13.75-14.5 GHz
- Directivity: 16 dB (typical).
- Return loss 18 dB.
- Crosspolar values lower than -35 dB on axis.
- Single linear polarization antenna in each frequency band.
- Can feed a Single Offset Reflector (offset/D = 0.6) with f/D between 0.6 and 0.8.
- **Configuration:** Horn - OMT - Bend - Filters.
- The OMT configuration on this feed can therefore be designed to work with ports in Tx/Tx or Rx/Rx (without using filters) .

Typical applications

- Fixed Satcom terminals
- Flyaway Satcom terminals

Performance

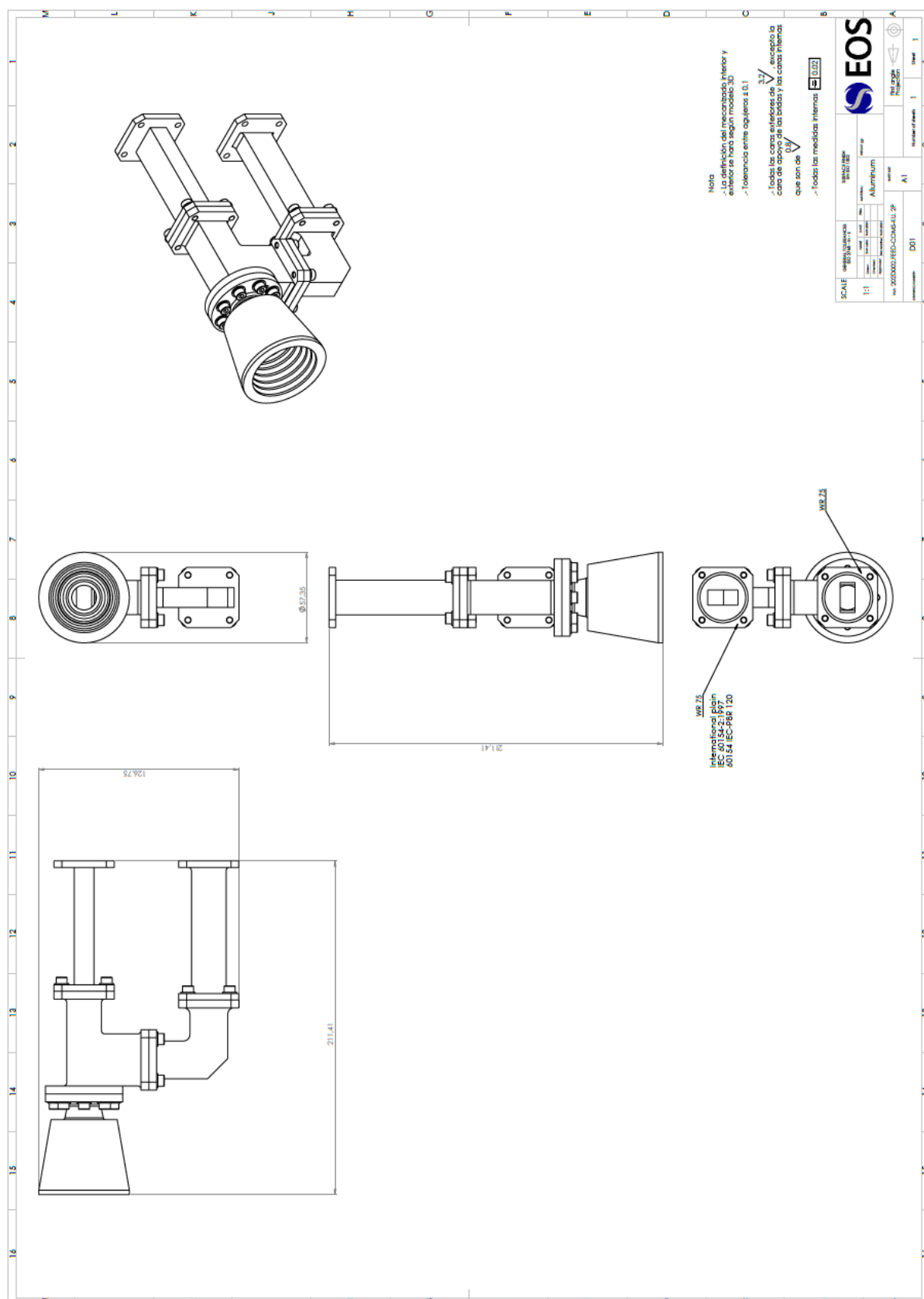
Parameter	Units	Value
Frequency	GHz	RX: 10.95 – 12.75 TX: 13.75 – 14.5
Polarization	-	Single Linear RX: V/H TX: H/V
Return loss	dB	> 18
Directivity	dB	16 (typ.)
FoV	°	31
Tapper level @ FoV	dB	-12 (typ.)
Max Crosspolar level (On Axis)	dB	RX: -35 TX: -35
Max Crosspolar level (On FoV)	dB	RX: -35 TX: -35
Isolation	dB	RX: TX/RX > 85 dB TX: RX/TX > 85 dB

Insertion loss	dB	< 0.4
Partial power over FoV	%	> 90 @10.95 – 12.75 GHz > 90 @13.75 – 14.5 GHz
Phase center variation over frequency	mm	8 @10.95-14.5 GHz
Ports	-	2 ports, V and H. TX interface: WR75 RX interface: WR75

Physical characteristics

Parameter	Units	Value
Dimensions (LxWxH)	mm	220 x 65 x 130
Mass	g	< 700
Material	-	Aluminium
Surface treatment	-	Bonderite (TBD) MIL-DTL-5541F, Type II, Class 1A
Coating	-	<i>*Under specification</i> MIL-DTL-53022 MIL-DTL-64159

Mechanical design and interfaces





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