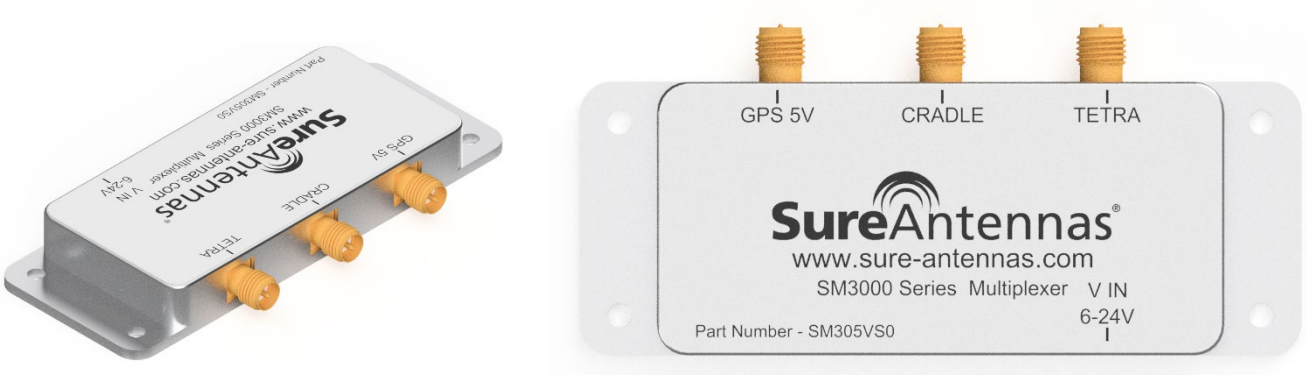
SM305VS0-F7-B Vehicle TETRA + GPS/GNSS Diplexer



Product name – Vehicle TETRA + GPS/GNSS Diplexer

Product Part Number – SM305VS0-F7-B

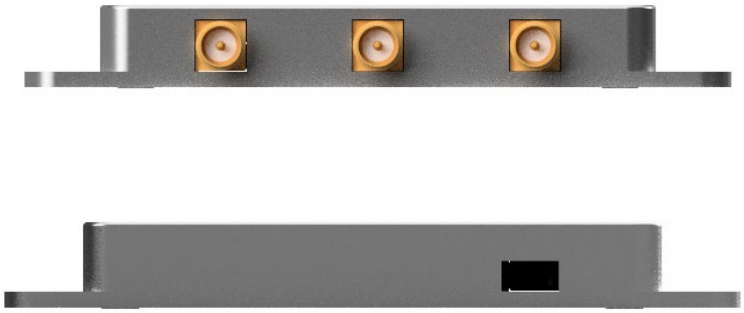
The Vehicle TETRA + GPS/GNSS Diplexer is designed for professional vehicle communication systems where a radio provides a combined TETRA and GPS/GNSS RF connection.

The unit separates the combined RF signal into dedicated **TETRA and GPS/GNSS** antenna outputs whilst providing an integrated regulated GPS antenna supply. Unlike conventional diplexers, the voltage regulator is inbuilt, reducing installation time, wiring complexity and component count.

The diplexer module is supplied as a common product and is available in multiple installation kits with different RF cable assemblies to suit specific radio manufacturers and vehicle installations.

Typical Applications:

- Police
- Ambulance
- Fire & Rescue
- Public Transport
- Utilities
- Fleet Vehicles
- Commercial Vehicles
- Mobile Communications



Technical Specifications

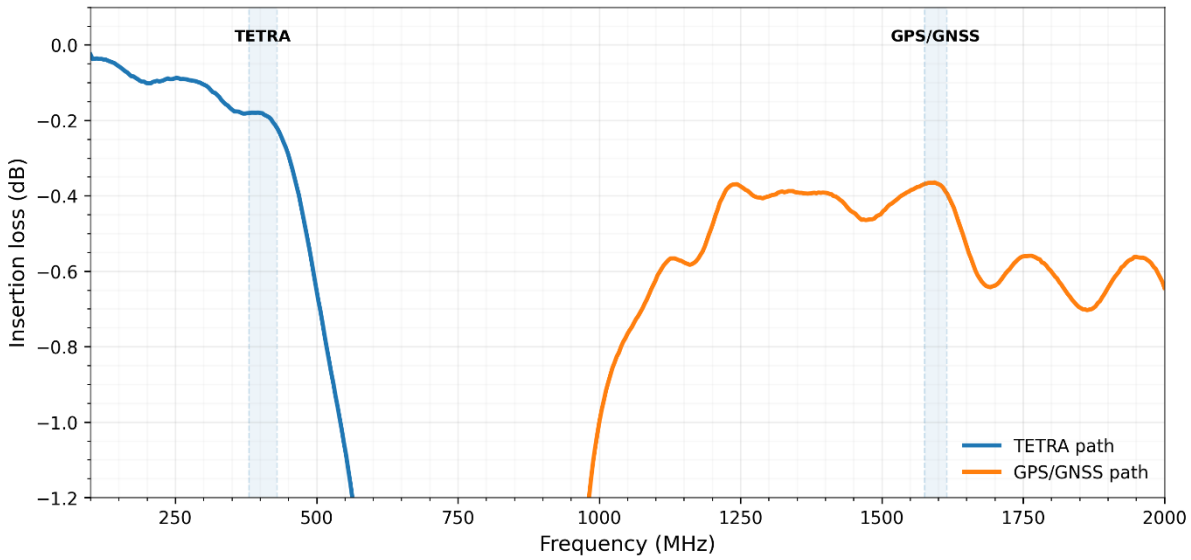
RF	
Parameter	**Value**
Low Pass Frequency	380–430 MHz
High Pass Frequency	1575–1615 MHz
Impedance	50 Ω
Maximum RF Power	TBC
Typical TETRA Insertion Loss	0.3 dB
Typical GPS Insertion Loss	0.5 dB
Typical Isolation	60 dB (TETRA), 48 dB (GPS)
Return Loss	TETRA >18 dB, GPS >20 dB
Mechanical	
Dimensions	90 × 40.8 × 10.4 mm
Weight	55 g
Housing	CNC Machined Aluminium
Finish	Silver
Mounting	3.2mm Hole

Connectors	
Parameter	**Value**
Common Radio Port	SMA Female
GPS Port	SMA Female
TETRA Port	SMA Female
Vehicle Power	Cable Assembly 3 Ways 1.25 mm 50 mm

Product Variants

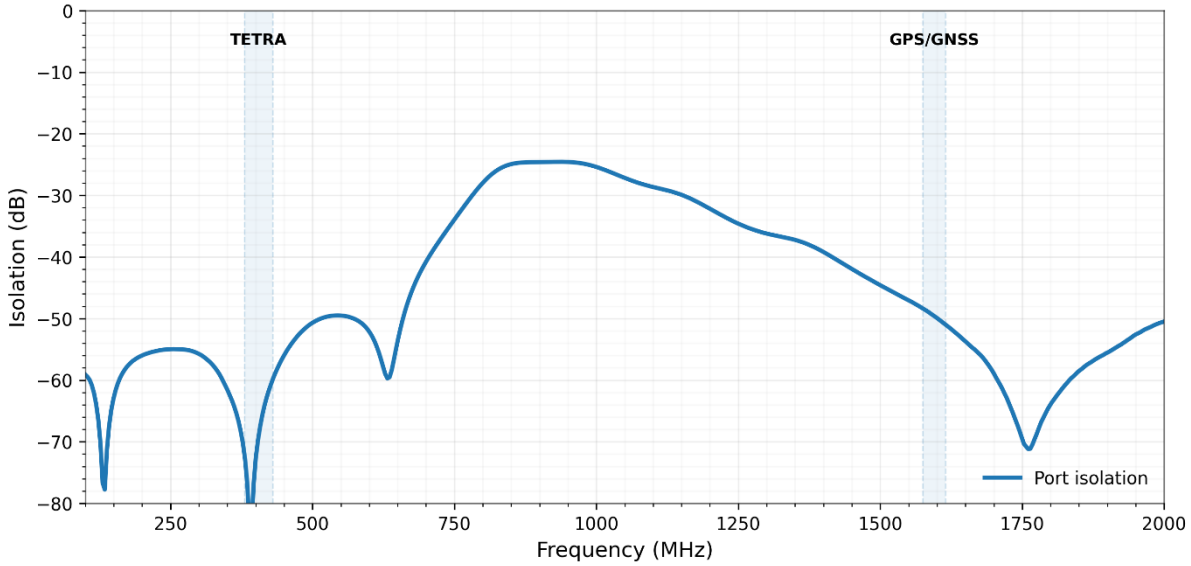
Part Number	Description
SK0100051	FME Airwave Hand portable Cradle Diplexer Kit
SK0100052	ESN/COVERT Airwave Hand portable Cradle Diplexer Kit
SK0100053	FME Sepura Hand portable Cradle Diplexer Kit
SK0100054	ESN/COVERT Sepura Hand portable Cradle Diplexer Kit

Insertion Loss



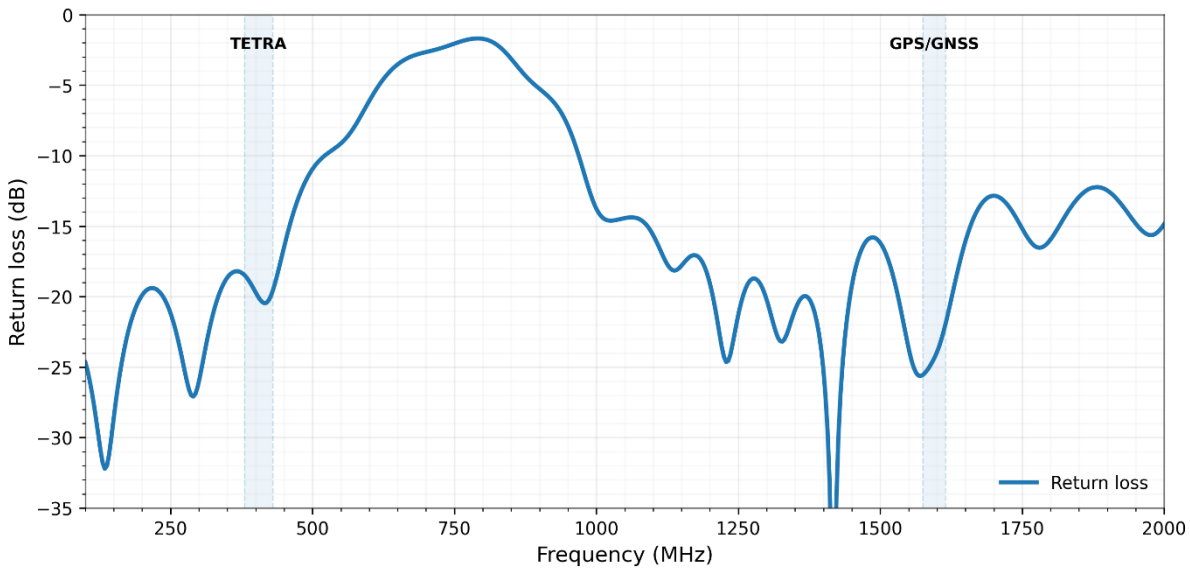
Marker	TETRA path	GPS/GNSS path
380 MHz	-0.18 dB	—
430 MHz	-0.22 dB	—
1575 MHz	—	-0.37 dB
1615 MHz	—	-0.40 dB

Port Isolation



Marker	Isolation
380 MHz	-72.80 dB
430 MHz	-59.74 dB
1575 MHz	-48.34 dB
1615 MHz	-51.07 dB

Return Loss



Marker	Return loss
380 MHz	-18.51 dB
430 MHz	-19.52 dB
1575 MHz	-25.58 dB
1615 MHz	-21.74 dB

Release History

Version	Date	Author	Changes
1.0	17/06/2026	Adrian Davies	Initial Release