

# E15V90P20

---



## SpectrumShare Passive Filter for GSM 900 and UMTS 900

### Product Classification

**Product Type** Diplexer

### General Specifications

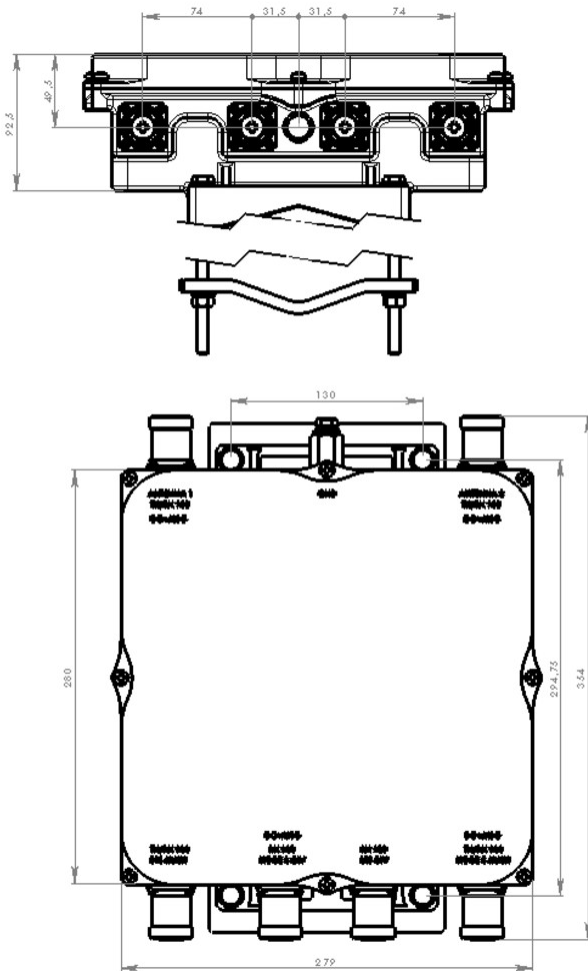
**Application** Outdoor  
**AISG Carrier** 2176 KHz  $\pm$  100 ppm  
**Antenna Interface** 7-16 DIN Female  
**Connector Interface** 7-16 DIN Female

### Dimensions

**Height** 280 mm | 11.024 in  
**Width** 92.5 mm | 3.642 in  
**Depth** 279 mm | 10.984 in

# E15V90P20

## Outline Drawing



## Electrical Specifications

<b>3rd Order IMD Test Method</b>	Two +43 dBm carriers
<b>3rd Order IMD, typical</b>	-158 dBm
<b>Isolation Between Paths, minimum</b>	50 dB
<b>Lightning Surge Current</b>	5 kA
<b>Lightning Surge Current Waveform</b>	8/20 waveform
<b>Peak Power, maximum</b>	1 kW

## Electrical Specifications, Rx (Uplink)

<b>Frequency Band</b>	880 – 915 MHz
-----------------------	---------------

# E15V90P20

---

<b>Insertion Loss, maximum, specific</b>	3.7 dB (UMTS diversity)   4.5 dB (GSM main)
<b>Insertion Loss, typical, specific</b>	3.5 dB (UMTS diversity)   4 dB (GSM main)
<b>Return Loss, minimum</b>	16 dB
<b>Isolation, minimum, specific</b>	22 dB (GSM main to UMTS diversity)
<b>License Band</b>	UMTS 900
<b>Port Designation</b>	Antenna port 1

## Electrical Specifications 2, Rx (Uplink)

<b>Frequency Band</b>	880 – 915 MHz
<b>Isolation, minimum, specific</b>	22 dB (UMTS main to GSM diversity)
<b>License Band</b>	GSM
<b>Port Designation</b>	Antenna port 2
<b>Insertion Loss, maximum, specific</b>	3.7 dB (GSM diversity)   4.5 dB (UMTS main)
<b>Insertion Loss, typical, specific</b>	3.5 dB (GSM diversity)   4 dB (UMTS main)
<b>Return Loss, minimum</b>	16 dB

## Electrical Specifications, Tx (Downlink)

<b>Frequency Band</b>	925 – 960 MHz
<b>Isolation, minimum, specific</b>	33 dB (GSM main to UMTS diversity)
<b>License Band</b>	GSM
<b>Input Power, RMS, maximum</b>	126 W
<b>Insertion Loss, typical</b>	0.35 dB
<b>Return Loss, minimum</b>	18 dB

## Electrical Specifications 2, Tx (Downlink)

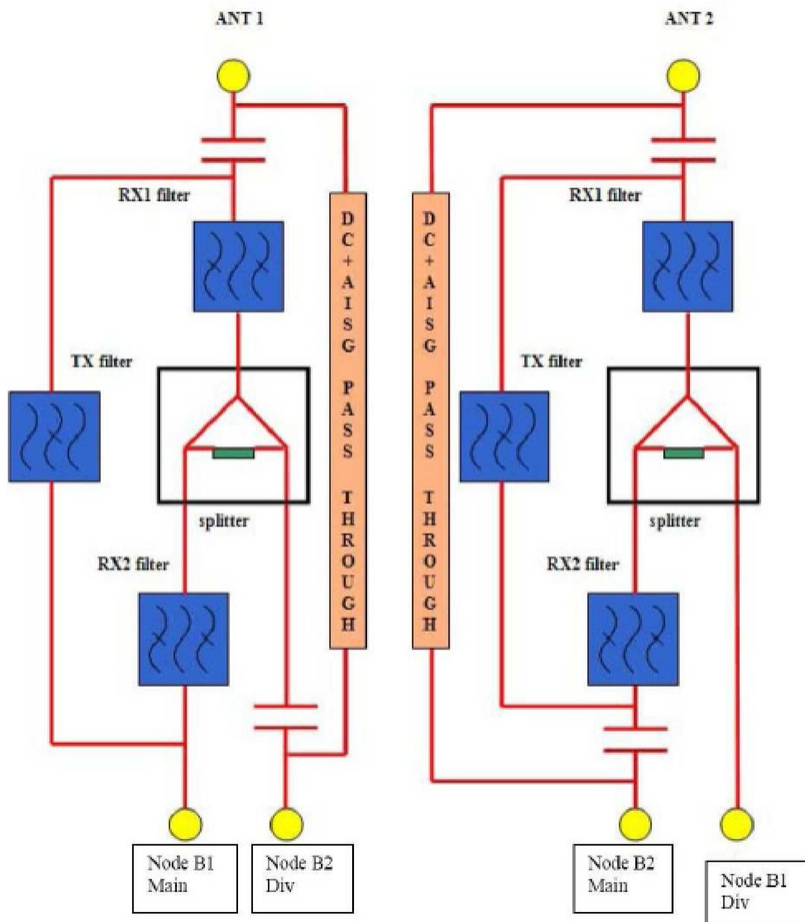
<b>Frequency Band</b>	925 – 960 MHz
<b>Insertion Loss, typical</b>	0.35 dB
<b>Isolation, minimum, specific</b>	33 dB (UMTS main to GSM diversity)
<b>License Band</b>	UMTS 900
<b>Return Loss, minimum</b>	18 dB

## Electrical Specifications, AISG

<b>Insertion Loss, maximum</b>	0.1 dB
<b>Return Loss, minimum</b>	20 dB

# E15V90P20

## Block Diagram



## Environmental Specifications

<b>Operating Temperature</b>	-40 °C to +75 °C (-40 °F to +167 °F)
<b>Ingress Protection Test Method</b>	IEC 60529:2001, IP68

## Packaging and Weights

<b>Included</b>	Mounting hardware
<b>Weight, net</b>	7.5 kg   16.535 lb

## Regulatory Compliance/Certifications

Agency	Classification
--------	----------------

# E15V90P20

---

ISO 9001:2015

Designed, manufactured and/or distributed under this quality management system