

BPF9001F1V1-1

| GSMR900 BAND PASS FILTER



This GSM-R filter is a two port unit with the ability to simultaneously pass both uplink and downlink GSM-R signals

PRODUCT FEATURES

- Designed for GSM-R cab radio use
- Suitable for indoor applications
- Narrow guard band to EGSM downlink signals

TECHNICAL SPECIFICATIONS |

| DOWNLINK (TX) PATH

| | |
|----------------------------------------|-----------------------|
| Frequency band | 918-924.9MHz |
| Bandwidth | 6.9MHz |
| Insertion loss, 918-924.8MHz | 1dB typ, 2dB max |
| Insertion loss, 924.8-924.9MHz | 2.5dB typ, 3dB max |
| Return loss, all ports, 918-924.8MHz | 15dB min |
| Return loss, all ports, 924.8-924.9MHz | 12dB min |
| Continuous average power | 10W max, unterminated |

| UPLINK (RX) PATH

| | |
|--------------------------|--------------------|
| Frequency band | 873-880MHz |
| Bandwidth | 7MHz |
| Insertion loss | 1dB typ, 2.0dB max |
| Return loss, all ports | 15dB min |
| Continuous average power | 10W max |

TECHNICAL SPECIFICATIONS CONTINUED |

| REJECTION CHARACTERISTIC (PORT 1 TO PORT 2)

| | |
|--------------|----------|
| 925.4-926MHz | 15dB min |
| 926-960MHz | 30dB min |

| ELECTRICAL GENERAL

| | |
|-----------------|---------------------------------------------|
| Impedance | 50ohms |
| Intermodulation | < -150dBc (in uplink band, 2x 5 W carriers) |

| ENVIRONMENTAL

For further details of environmental compliance, please contact Kaelus.

| | |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating temperature range | -25°C to +70°C -13°F to +158°F, EN 50155, 4.1.2, T3 |
| Ingress protection | IP54 |
| Altitude | 1,400m 4,600ft, EN 50125.1 sub clause 2, Class AX. |
| MTBF | >1,000,000 hours |
| Compliance | EN 50155 4.1.3 shock and vibration EN 50155 4.1.4 relative humidity EN 50121-3-2 EMC rolling stock EN 45545 Fire Protection on Railway Vehicles ETSI 300-019-2-1 Storage and Transport Environmental RoHS |

| MECHANICAL

| | |
|----------------------|--------------------------------------------|
| Dimensions H x D x W | 300 x 200 x 100mm 11.81 x 7.87 x 3.93in |
| Weight, (kg lb) | 5.0kg 33.1lbs max (excludes brackets) |
| Connectors | N-type (F) x 2 |
| Mounting | Customer specific, includes grounding post |

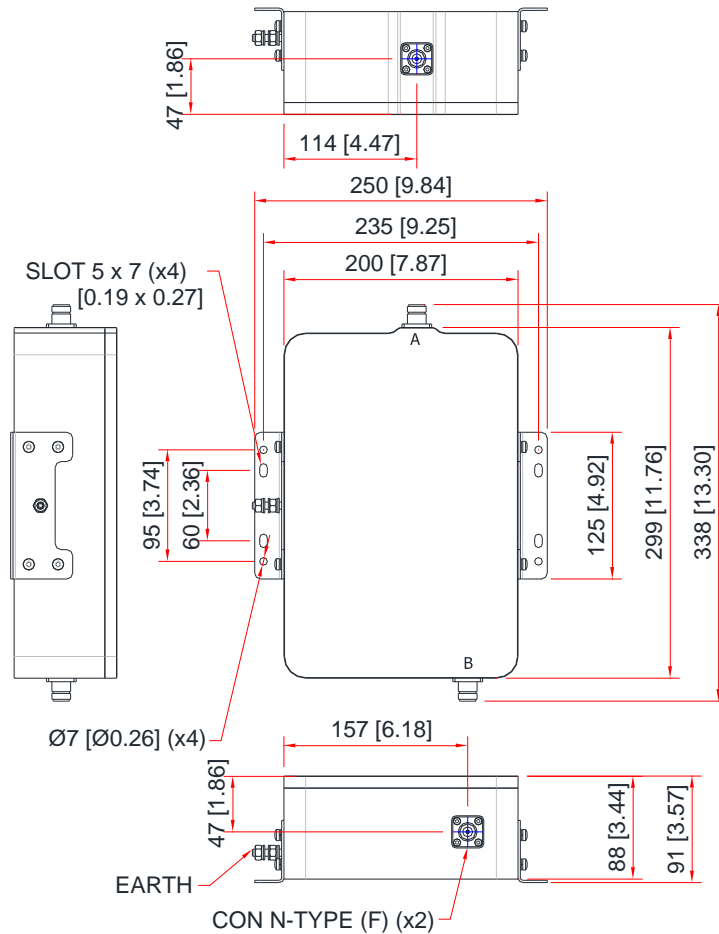
ORDERING INFORMATION |

| Kaelus Part Number | Kaelus Description |
|--------------------|--------------------------------------------------|
| BPF9001F1V1-1 | GSMR900 Band pass filter |
| DCI9001F1V1-1 | DC Injector |
| SWT9002F1V1-1 | Switch assembly for BPF9001F1V1-1 |
| GSR0002F1V1-1 | System including BPF9001F1V1-1 and SWT9002F1V1-1 |

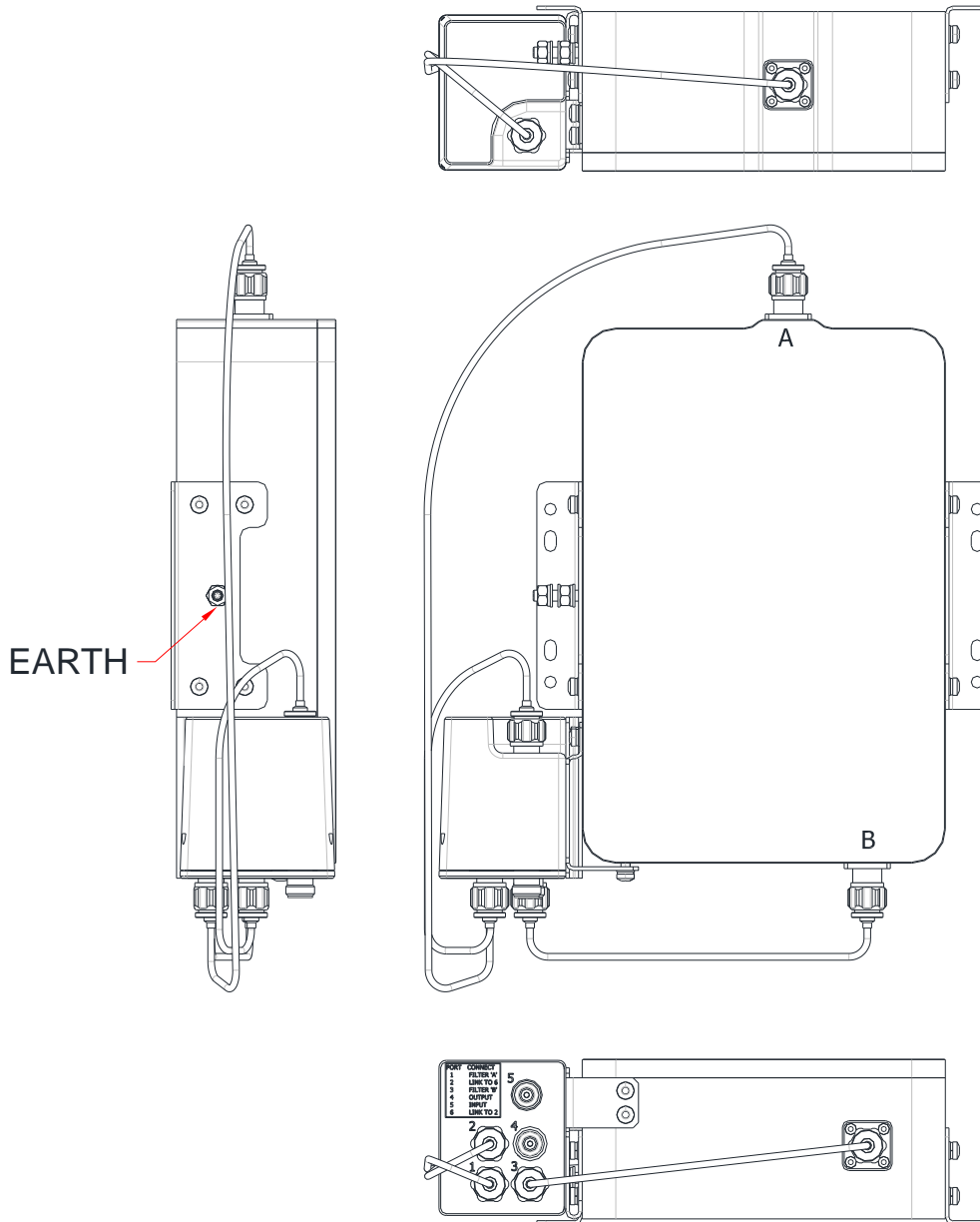
ELECTRICAL BLOCK DIAGRAM |



MECHANICAL BLOCK DIAGRAM |



MECHANICAL BLOCK DIAGRAM INCLUDING SWITCH ASSY|



Information contained within this datasheet is valid at the time of release and may be reviewed by Kaelus at any time.