

OTKW 2-way 1.2 GHz tap

- 2 way skyline style widebody 1.2GHz tap
- RF and power bypass capability
- Compatible with existing Skyline taps
- Robust outdoor powder coated housing
- Available in faceplate only replacements
- Surge immunity meets IEEE C62.41
- Salt spray compliance on housing - 672 hours
- Hum and noise according to ANSI/SCTE 16 2012



Overview

The Technetix OTKW series of Skyline style outdoor taps now offers a complete line in outdoor tap passives. All OTKW 2-way outdoor taps are mechanically identical in shape with tap values between 10 and 26 dB. All taps feature sealed female F-ports for drop cable connection on the faceplate and 5/8"-24 NEF-female ports for input and output cable connection on the housing.

The housing has the option of an AC-RF bypass switch, allowing faceplates to be changed without loss of power or RF through the tap housing. The faceplates are compatible with other Skyline hardware. Taps may be strand mounted through the clamp at the back of the housing, or can be surface mounted with an optional bracket.

Also, both the housing and connector design and material selection combine to provide first class leading corrosion resistance.

Outdoor taps

OTKW 2-way 1.2 GHz tap

Specifications

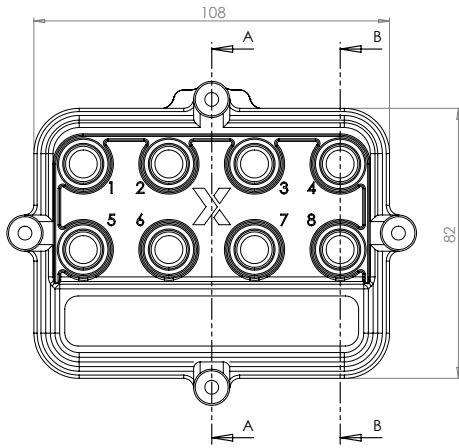
| | | MHz | 2-4 | 2-8 | 2-11 | 2-14 | 2-17 | 2-20 | 2-23 | 2-26 | 2-29 | 2-32 | 2-35 |
|---------------------------------------|------------|-------------------------|----------|------|------|------|------|------|------|------|------|------|------|
| | | | Max | Max | Max | Max | Max | Max | Max | Max | Max | Max | Max |
| Insertion loss (dB) | In to tap | 10 - 65 | 5.0 | 9.0 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 | 36 |
| | | 65 - 860 | 5.0 | 9.0 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 | 36 |
| | | 86 - 1218 | 5.5 | 9.5 | 12.5 | 15.5 | 18.5 | 21.5 | 24.5 | 27.5 | 30.5 | 33.5 | 36.5 |
| | In to out | 10 - 65 | | 3.6 | 2.0 | 1.5 | 1.1 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.7 |
| | | 65 - 300 | | 4.0 | 2.0 | 1.3 | 1.2 | 0.9 | 0.9 | 0.9 | 0.8 | 0.8 | 0.8 |
| | | 300 - 550 | | 4.7 | 2.5 | 1.9 | 1.7 | 1.3 | 1.3 | 1.3 | 1.2 | 1.2 | 1.2 |
| | | 550 - 750 | | 4.7 | 2.7 | 2.1 | 1.8 | 1.5 | 1.5 | 1.4 | 1.3 | 1.3 | 1.3 |
| | | 750 - 862 | | 5.0 | 3.0 | 2.3 | 2.0 | 1.8 | 1.7 | 1.7 | 1.4 | 1.4 | 1.4 |
| | | 862 -1000 | | 5.1 | 3.1 | 2.4 | 2.1 | 1.9 | 1.8 | 1.8 | 1.5 | 1.5 | 1.5 |
| | | 1000 - 1218 | | 5.3 | 3.3 | 2.6 | 2.3 | 2.1 | 2.0 | 2.0 | 1.7 | 1.7 | 1.7 |
| Return loss | All ports | 10 - 15 | Min | Min | Min | Min | Min | Min | Min | Min | Min | Min | Min |
| | | 15 - 47 | 18.0 | 18.0 | 16.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |
| | | 47 - 950 ⁵ | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |
| | | 950 - 1218 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Directivity | Out to tap | 10 - 15 | | 20.0 | 22.0 | 25.0 | 28.0 | 29.0 | 30.0 | 31.0 | 32.0 | 33.0 | 34.0 |
| | | 15 - 65 | | 25.0 | 26.0 | 30.0 | 32.0 | 33.5 | 35.0 | 36.5 | 38.0 | 39.5 | 41.0 |
| | | 65 - 860 | | 23.0 | 25.0 | 27.0 | 30.0 | 31.5 | 33.0 | 34.5 | 36.0 | 37.5 | 39.0 |
| | | 860 - 1218 | | 20.0 | 22.0 | 22.0 | 25.0 | 26.0 | 27.0 | 29.0 | 30.0 | 33.0 | 35.0 |
| Isolation | Tap to tap | 10 - 15 | 20.0 | 20.0 | 20.0 | 20.0 | 22.0 | 22.0 | 22.0 | 23.0 | 23.0 | 24.0 | 24.0 |
| | | 15 - 65 | 25.0 | 22.0 | 22.0 | 22.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 |
| | | 65 - 860 ⁶ | 25.0 | 22.0 | 22.0 | 24.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 | 26.0 |
| | | 860 - 1218 | 22.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Screening effectiveness (dB) | | 10 - 30 ³ | 2.5 mΩ/m | | | | | | | | | | |
| | | 30 - 300 ⁴ | 95.0 | | | | | | | | | | |
| | | 300 - 470 ⁴ | 90.0 | | | | | | | | | | |
| | | 470 - 950 ⁴ | 85.0 | | | | | | | | | | |
| | | 950 - 1218 ⁴ | 80.0 | | | | | | | | | | |
| Frequency range (MHz) | All ports | 10 - 1218 | | | | | | | | | | | |
| Connectors | I/P, O/P | 5/8 | | | | | | | | | | | |
| | TAP | F-female | | | | | | | | | | | |
| Temperature range (°C) | | | Min | | | | | Max | | | | | |
| | Operating | | -40 | | | | | +60 | | | | | |
| | Storage | | -40 | | | | | +60 | | | | | |
| | Spec | | +20 | | | | | +65 | | | | | |
| Power passing (Amps AC/DC, max) | | 12 | | | | | | | | | | | |
| Hum modulation (dB, typ) ² | | | Min | | | | | | | | | | |
| | | 5 - 10 | 65.0 | | | | | | | | | | |
| | | 10 - 860 | 70.0 | | | | | | | | | | |
| | | 860 - 1218 | 65.0 | | | | | | | | | | |
| Surge (kV) ¹ | | 2 | | | | | | | | | | | |
| Impedance (Ω) | | 75 | | | | | | | | | | | |
| MTBF (hrs) | | 100000 | | | | | | | | | | | |
| Equipment approval | | CE | | | | | | | | | | | |

Remarks

| | |
|---|---|
| 1 | IEEE-C62.41, combination wave, category B1 (rise time 1,2 μS / fall time 50 μS). No degradation allowed |
| 2 | Measured at 7A (test setup in accordance with ANSI-SCTE-16) |
| 3 | IEC 62153-7 § 5.5 |
| 4 | IEC 62153-7 § 5.5 |
| 5 | F > 40 MHz -1.5dB/oct |
| 6 | F > 40 MHz -1.5dB/oct no greater than -20dB |

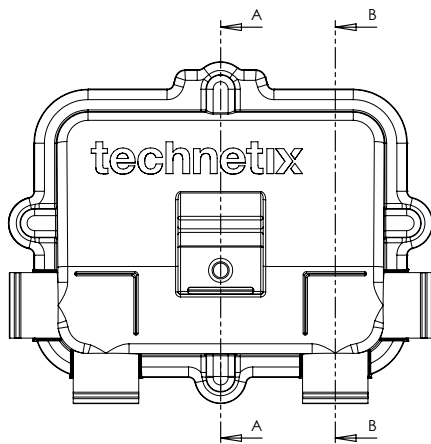
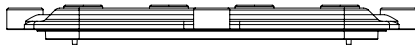
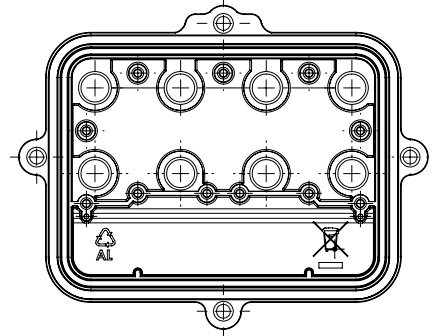
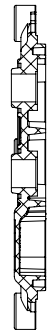
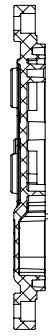
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Engineering images

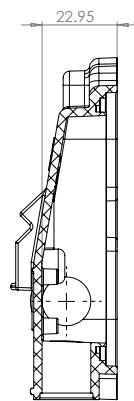


SECTION A-A

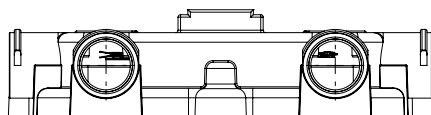
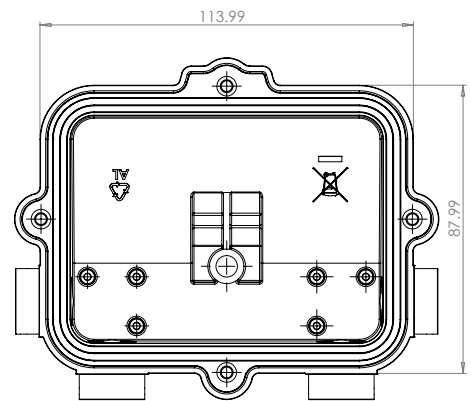
SECTION B-B



SECTION A-A
SCALE 1 : 1



SECTION B-B
SCALE 1 : 1



Mechanical & environmental specifications

| Test | Conditions | | Requirements |
|----------------------------|-------------------|---|------------------------------------|
| Air Leakage | Medium | Water | No air leakage |
| | Duration | 1 minute | |
| | Pressure | 1.5 kg/cm ² | |
| Physical Drop | Height | 3ft/91 cm | No physical damage |
| | Surface | Hard (concrete) | No electrical damage |
| | No. of drops | 5 | |
| | Impact point | 5 | |
| Salt Fog | Duration | 672 hours (28 days) | According to BS EN 60068-2-52 1996 |
| Temp Cycling with Humidity | Temperature | -40°F till 140°F -40°C till 60°C | No electrical damage |
| | Duration | 3hrs extremes - 3hrs transition | Measured when dry |
| | Humidity | 95% RH | |
| Temp Cycling with Humidity | No. of cycles | 14 cycles - 12hrs | |
| UV Degradation | Exposure | QUV Weatherometer | According to Bellcore GR-2873 |
| | Radiation type | UVB - 313 (ASTM G154) | For surface degradation |
| | Cycle | 4hrs UV - 4hrs condensation | |
| | Duration | 100hrs | |
| Water Immersion | Depth | 47.24 inches/1.2 meters | No water ingress |
| | Meters duration | 168hrs | |
| Vibration | Frequency | 10-55 Hz | No electrical damage |
| | Position | Vertical | |
| | Duration | 20 minutes | |
| | Average position | Horizontal X-Y | |
| | Duration | 20 minutes | |
| Ozone | | | According to ASTM D1171 |
| Mechanical | SCTE 01 2006 | Specification for F-port, female, outdoor | |
| | Bellcore GR-2873 | Vibration and impact | |
| Environmental | ASTM B117 | Standard practice for operating salt fog spray apparatus | |
| | ASTM B827 | Standard practice for conduction mixed flowing gas environmental test | |
| | Bellcore GR-2873 | Temperature cycling with humidity | |
| | Bellcore GR-2873 | Water immersion | |
| | Bellcore GR-2873 | Salt fog exposure | |
| | Bellcore GR-2873 | Environmental pollutants | |
| | Bellcore GR-2873 | Chemical resistance | |
| Electrical | IEEE C62.41-1991 | Recommended practice on surge voltages on low-voltage AC power circuits | |
| | SCTE 48-1 2007 | Surge withstand test procedure | |
| Ingress | SCTE 81 2007 | Test method for measuring shielding effectiveness using a GTEM cell | |
| Transmission | SCTE 16 2001R2007 | Test procedure for hum modulation | |

| | Port | Range | Min | Typical | Max | Units |
|-------------------|-------------|-------|-----|--------------------|------|-------|
| Connectors | In | | | 5/8"-24 NEF female | | |
| | Tap | | | F-female | | |
| Temperature Range | Operating | | -40 | | +60 | °C |
| | | | -40 | | +140 | °F |
| | Storage | | -60 | | +70 | °C |
| | | | -76 | | +158 | °F |
| Weight | Tap | | | 478 | | Gram |
| | Faceplate | | | 195 | | |
| Material | F-connector | | | NiSn plated | | |
| | F-spring | | | Silver plated | | |
| Color | Housing | | | Gray | | |

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