

## SPECIFICATION SHEET

**JFW MODEL 50S-1317+XX**

**1P8T NORMALLY OPENED REFLECTIVE  
ELECTROMECHANICAL RF SWITCH**

JFW Industries, Inc.  
Phone: 317-887-1340  
sales@jfwindustries.com  
www.jfwindustries.com

|                                   |                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency Range                   | DC-18 GHz                                                                                                                                                                                                                                                                                                               |
| Configuration                     | 1P8T Normally Open Reflective                                                                                                                                                                                                                                                                                           |
| Impedance                         | 50 Ohms nominal                                                                                                                                                                                                                                                                                                         |
| VSWR                              | 1.25:1 maximum DC-4GHz<br>1.35:1 maximum 4-8GHz<br>1.40:1 maximum 8-12GHz<br>1.50:1 maximum 12-16GHz<br>1.80:1 maximum 16-18GHz                                                                                                                                                                                         |
| Insertion Loss                    | 0.2 dB maximum DC-4GHz<br>0.3 dB maximum 4-8GHz<br>0.4 dB maximum 8-12GHz<br>0.5 dB maximum 12-16GHz<br>0.8 dB maximum 16-18GHz                                                                                                                                                                                         |
| Isolation                         | 70 dB minimum DC-4GHz<br>65 dB minimum 4-8GHz<br>60 dB minimum 8-12GHz<br>60 dB minimum 12-16GHz<br>55 dB minimum 16-18GHz                                                                                                                                                                                              |
| Switching Speed                   | 15 milliseconds                                                                                                                                                                                                                                                                                                         |
| RF Input Power<br>(cold switched) | 500 Watts average DC-100MHz<br>400 Watts average 100-200MHz<br>200 Watts average 200-1000MHz<br>100 Watts average 1-4GHz<br>70 Watts average 4-8GHz<br>60 Watts average 8-12GHz<br>50 Watts average 12-16GHz<br>45 Watts average 16-18GHz                                                                               |
| Control (8 lines)                 | +XX is either +12, +15, +24 or +28:<br>-----<br>+12Vdc @ 285mA nominal (11-14Vdc range)<br>+15Vdc @ 225mA nominal (13-17Vdc range)<br>+24Vdc @ 140mA nominal (20-28Vdc range)<br>+28Vdc @ 120mA nominal (24-32Vdc range)                                                                                                |
| Control Wiring                    | The control lines can be wired as Ground activated or Voltage activated. The control pins are not polarity sensitive. Only one port can be active at a time.<br><br>Ground activated: "C" tied to +XX Vdc<br>Each port then GND activated<br><br>Voltage activated: "C" tied to GND<br>Each port then +XX Vdc activated |
| DC Connector                      | Solder Terminals                                                                                                                                                                                                                                                                                                        |

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RF Connector

SMA female

Operating Temperature Range

-20°C to +65°C

Physical Size

See outline drawing 092-4188

Note: Add (-NR) for NON-RoHS version. (I.e. 50S-1317+12-NR SMA)



| ECR/ECN # | DATE       | REV | APPR / DATE    | ECR/ECN # | DATE       | REV | APPR / DATE    |
|-----------|------------|-----|----------------|-----------|------------|-----|----------------|
| 19957     | 04/07/2011 | A   | TRS 04/07/2011 | 28823     | 06/25/2018 | D   | TRS 06/25/2018 |
| 23953     | 03/28/2014 | B   | BAC 03/28/2014 | 30913     | 02/01/2021 | E   | BAC 02/01/2021 |
| 26548     | 04/15/2016 | C   | TRS 04/15/2016 | 33456     | 07/16/2024 | F   | TRS 07/16/2024 |