

**TPS20-43-350/6000**

Broadband Tapper/Unequal Divider for Wireless & Indoor Application, Support 350-6000MHz with coupling value 20dB

**PRODUCT DESCRIPTION**

RFS TPS-43 series Tapper/Unequal Divider have been designed for a variety of wireless applications in the frequency band from 350 to 6000MHz. The unit couples off a defined fraction of a RF signal from 5 to 30 dB with minimal reflections or loss. The broad frequency range is ideally suited for multi-band distributed antenna systems or in combination with RADIAFLEX® radiating cables.

**FEATURES / BENEFITS**

- **Broadband 350MHz-6000MHz**
- 4,3-10 Female Interface
- PIM Optimized Design (163dBc @2x43dBm)
- Low Insertion Loss
- High Power Handling
- Small Size, Low Weight

**TECHNICAL FEATURES****ELECTRICAL SPECIFICATIONS**

|                         |     |          |
|-------------------------|-----|----------|
| Frequency Range         | MHz | 350-6000 |
| Power Rating            | W   | 300      |
| Maximum Reflected Power | W   | 200      |
| PIM 3rd @2*43 dBm       | dBc | 163      |
| Input Impedance         | Ohm | 50       |

**MECHANICAL SPECIFICATIONS**

|                   |         |                                                                                 |
|-------------------|---------|---------------------------------------------------------------------------------|
| Connectors        |         | 4.3-10 Female                                                                   |
| Dimensions, L*W*H | mm(in)  | 143.5*46*25<br>(5.65*1.81*0.98)                                                 |
| Net Weight ±10%   | kg (lb) | 0.25(0.55)                                                                      |
| Temperature Range | °C      | -25 to +65 (+160 for 2hours in an event of fire, encased in DragonSkin Cabinet) |
| IP Level          |         | IP66                                                                            |
| RoHS              |         | Compliant                                                                       |

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**MODEL NUMBER SPECIFICATIONS**

| Model Number       |    | TPS3-43-350/6000                                                                                                                                                                      | TPS5-43-350/6000                                                                                                                                                                 | TPS6-43-350/6000                                                                                                                                                    | TPS8-43-350/6000                                                                                                                                                            |
|--------------------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VSWR               |    | 1.25:1@0.698-0.96&1.695-2.7GHz<br>1.35:1@0.35-0.698&3.5-4.5&4.9-6GHz                                                                                                                  | 1.25:1@0.35-0.96&1.695-2.7GHz<br>1.3:1@3.5-4.5&4.9-6GHz                                                                                                                          | 1.25:1@0.35-0.96&1.695-2.7GHz 1.3:1@3.5-4.5&4.9-6GHz                                                                                                                | 1.2:1@0.35-0.96&1.695-2.7GHz<br>1.3:1@3.5-4.5&4.9-6GHz                                                                                                                      |
| Coupling Loss      | dB | 3.0                                                                                                                                                                                   | 5.0                                                                                                                                                                              | 6.0                                                                                                                                                                 | 8.0                                                                                                                                                                         |
| Coupling Tolerance | dB | 4.8dB +0/-1.5dB@0.35-0.38GHz<br>4.8dB +0/-1.3dB@0.38-0.698GHz<br>4.8dB +0/-0.8dB@0.698-0.96GHz<br>4.8dB ±0.8dB@1.695-2.7GHz<br>4.8dB +0/-1.9dB@3.5-4.5GHz<br>4.8dB +0.1/-1dB@4.9-6GHz | 6dB +0/-1.3dB@0.35-0.38GHz<br>6dB +0.2/-1.1dB@0.38-0.698GHz<br>6dB +0.15/-0.45dB@0.698-0.96GHz<br>6dB ±0.6dB@1.695-2.7GHz<br>6dB +0/-1.85dB@3.5-4.5GHz<br>6dB +0.1/-1dB@4.9-6GHz | 7dB +0.3/-1dB@0.35-0.38GHz<br>7dB -0.3/-1dB@0.38-0.698GHz<br>7dB ±0.5dB@0.698-0.96GHz<br>7dB ±0.7@1.695-2.7GHz<br>7dB +0.3/-1.4dB@3.5-4.5GHz<br>7dB ±0.7dB@4.9-6GHz | 8dB+0/-1.3dB@0.35-0.38GHz<br>8dB +0/-0.8dB@0.38-0.698GHz<br>8dB ±0.4dB@0.698-0.96GHz<br>8dB +0.15/-1dB@1.695-2.7GHz<br>8dB +0/-1.5dB@3.5-4.5GHz<br>8dB +0.1/-1.1dB@4.9-6GHz |
| Insertion Loss     | dB | 1.8dB@0.35-0.96GHz<br>2.1dB@1.695-2.7GHz<br>2dB@3.5-4.5&4.9-6GHz                                                                                                                      | 1.65                                                                                                                                                                             | 1.5                                                                                                                                                                 | 1.15                                                                                                                                                                        |

**MODEL NUMBER SPECIFICATIONS**

| Model Number       |    | TPS10-43-350/6000                                                                                                                                                                | TPS13-43-350/6000                                                                                                                                                           | TPS15-43-350/6000                                                                                                                       | TPS20-43-350/6000                                                                                                                          |
|--------------------|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| VSWR               |    | 1.2:1@0.35-0.96&1.695-2.7GHz<br>1.3:1@3.5-4.5&4.9-6GHz                                                                                                                           | 1.2:1@0.35-0.96&1.695-2.7GHz<br>1.3:1dB@3.5-4.5&4.9-6GHz                                                                                                                    |                                                                                                                                         |                                                                                                                                            |
| Coupling Loss      | dB | 10.0                                                                                                                                                                             | 13.0                                                                                                                                                                        | 15.0                                                                                                                                    | 20.0                                                                                                                                       |
| Coupling Tolerance | dB | 10dB +0/-1.3dB@0.35-0.38GHz<br>10dB +0/-0.8dB@0.38-0.698GHz<br>10dB ±0.45 dB@0.698-0.96GHz<br>10dB ±0.7dB@1.695-2.7GHz<br>10dB +0/-1.5dB@3.5-4.5GHz<br>10dB +0.1/-1.1dB@4.9-6GHz | 13dB ±1.0dB@0.35-0.38GHz<br>13dB ±0.7dB@0.38-0.698GHz<br>13dB ±0.5dB@0.698-0.96GHz<br>13dB ±0.65dB@1.695-2.7GHz<br>13dB +0.25/-1.25dB@3.5-4.5GHz<br>13dB +0.3/-1dB@4.9-6GHz | 15dB ±1.0dB@0.35-0.38GHz<br>15dB ±0.8dB@0.38-0.96GHz<br>15dB ±0.6dB@1.695-2.7GHz<br>15dB +0.3/-1.3dB@3.5-4.5GHz<br>15dB ±0.8dB@4.9-6GHz | 20dB ±1dB@0.35-0.38GHz<br>20dB ±0.8dB@0.38-0.96GHz<br>20dB +0.4/-1.1dB@1.695-2.7GHz<br>20dB +1.2/-0.8dB@3.5-4.5GHz<br>20dB ±1.5dB@4.9-6GHz |
| Insertion Loss     | dB | 0.75                                                                                                                                                                             | 0.65                                                                                                                                                                        | 0.4                                                                                                                                     | 0.2dB@0.35-0.96&1.695-2.7GHz<br>0.3dB@3.5-4.5&4.9-6GHz                                                                                     |

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|                    |    |                                                                                                                                                        |
|--------------------|----|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Model Number       |    | TPS30-43-350/6000                                                                                                                                      |
| VSWR               |    | 1.2:1@0.35-0.96&1.695-2.7GHz<br>1.3:1dB@3.5-4.5&4.9-6GHz                                                                                               |
| Coupling Loss      | dB | 30.0                                                                                                                                                   |
| Coupling Tolerance | dB | 30dB+1.7/-0.3dB@0.35-0.698GHz<br>30dB +1.5/-0.2dB@0.698-0.96GHz<br>30dB ±1dB@1.695-2.7GHz<br>30dB +2.7/-0.8dB@3.5-4.5GHz<br>30dB +1.05/-2.5dB@4.9-6GHz |
| Insertion Loss     | dB | 0.2                                                                                                                                                    |

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Notes