

# Directional Coupler



Somefly's DC-7038-XX-43F directional coupler design is rated for a minimum frequency of 698 MHz and a maximum frequency of 3800 MHz. Units couple off a defined fraction of signal with minimal reflections or loss. Availability in a wide range of coupling values makes this series useful in optimizing the signal distribution required in passive distributor radio access network(D-RAN). The extremely wide frequency range allows use with multiband antennas, leaky cable systems and wireless base stations. With minimal solder joints and a low loss dielectric, the dissipative loss has been minimized and reliability enhanced.



- Frequency: 698 to 3800 MHz
- VSWR: 1.3:1
- PIM: -155 dBc (@2x +43 dBm)
- Power: 300 W avg., 1 kW pk\*
- Impedance: 50Ω
- Environment: -35°C to +70°C,
- Housing Finish: Black or Gray
- Connectors: 4.3/10 Female
- Weight, nom: 520gra

| Part Number    | Coupling nom. dB | Frequency Sensitivity dB | Isolation dB | Coupled Loss, max dB |
|----------------|------------------|--------------------------|--------------|----------------------|
| DC-7038-05-43F | 5                | ±0.8                     | ≥24          | 2.10                 |
| DC-7038-06-43F | 6                | ±0.8                     | ≥25          | 1.70                 |
| DC-7038-08-43F | 8                | ±1.0                     | ≥26          | 1.21                 |
| DC-7038-10-43F | 10               | ±1.0                     | ≥29          | 0.90                 |
| DC-7038-15-43F | 15               | ±1.1                     | ≥34          | 0.44                 |
| DC-7038-20-43F | 20               | ±1.2                     | ≥39          | 0.34                 |
| DC-7038-30-43F | 30               | ±1.5                     | ≥41          | 0.31                 |

