

PRG Series

Remote Mounted, Reference Generation Units.



The **PRG series** remote mounted reference generator units from Peak Communications are designed to provide highly stable reference generation, primarily for satellite earth station applications.

The **PRG series** units are DC powered and are constructed of high grade components to give the ultimate stability performance.







The **PRG series** units utilise a sealed chassis and are designed for mounting in outdoor, exposed locations and are fully weatherproof.

Reference Generator Products;

PRG02	2-way output
PRG04	4-way output

For equivalent rack mount units, please see IRG series.

Peak Features

-  High gain flatness and stability performance
-  Amplifier low current alarm monitoring
-  Rugged weatherproof housing
-  Multi-channel units available in larger chassis
-  Temperature compensated for thermal stability and fast warm-up
-  Fully compatible with **RCU50** 1+1 redundancy controllers and remote switch units



PRG series - Typical Specification

Performance (PRGxx)

Ways (xx) 2 & 4-way available
 Note; for more ways in a larger chassis, please contact the factory

Frequency 10MHz
 Option 3a; 5MHz
 Option 3b; 50MHz
 Option 3c; 100MHz
 Stability $<5 \times 10^{-10}$ over 1s, $<5 \times 10^{-9}$ per day
 Ageing $<5 \times 10^{-7}$ per year
 Temp stability $<5 \times 10^{-8}$ over 0 to 50°C
 Phase noise
 -110dBc/Hz at 10Hz
 -130dBc/Hz at 100Hz
 -145dBc/Hz at 1kHz
 -150dBc/Hz at ≥ 10 kHz

Output level 0dBm nominal
 Note; for higher GCP options please contact the factory
 Output connections TNC (f), 50Ω

High stability (Option 4)

Stability $<2 \times 10^{-12}$ over 1s, $<2 \times 10^{-10}$ per day
 Ageing $<2 \times 10^{-8}$ per year
 Temp stability $<2 \times 10^{-9}$ over 0 to 50°C
 Phase noise
 -130dBc/Hz at 10Hz
 -140dBc/Hz at 100Hz
 -155dBc/Hz at 1kHz
 -160dBc/Hz at ≥ 10 kHz

External Reference Input

Frequency 10MHz (5MHz factory settable)
 Level 0dBm ± 3 dB
 Connector TNC (f), 50Ω

Mechanical

Width 123mm (4.85")
 Height 172mm (6.8"), plus connections & mounting flanges
 Depth 48mm (1.89")
 Construction Die-cast Aluminium, IP66 rated
 Weight 1.4kgs (3lbs) approx

Environmental

Operating temp
 Option 12; -25°C to +55°C (less solar gain)
 -40°C to +55°C (less solar gain), with extended warm-up time for cold start operation & higher current
 Humidity 0-100% condensing
 EMC EN 55022 part B & EN 50082-1
 Safety EN 60950

Power Supply

Voltage +16.5 to +35VDC
 Current 500mA max
 Connection Fed in on 5-pin control interface connection

Control System Interface

Alarms Summary alarm contacts
 Connection 5-pin circular weatherproof (mating part supplied)

Options

- 3a) 5MHz reference system
- 3b) 50MHz reference system
- 3c) 100MHz reference system
- 4) High stability internal reference
- 12) Low temperature operation to -40°C

Connector panel view

