AN/PRS-12
Global Broadcast Service (GBS), Rucksack Portable Receive Suite (RPRS)

AN/PRS-12 FEATURES:
- Battle Ready
- Deploy, Power-on, Acquire
- Truly Rucksack Portable
- Receives Current GBS Bandwidth
- Full System weighs 22 lbs
- Modem Agnostic
- Receives DVB-S/S2 Multi-Cast FMV, ISR
- Receives In-Theatre DVB-RCS Network Broadcast

The AQYR AN/PRS-12 is a lighter weight tactical version of the AN/PRS-11, which was originally developed under the Air Force SBIR program and won a 2007 Defense Acquisition Challenge award sponsored by SPAWAR.

The GBS portable receive suite revolutionizes the way warfighters operate. It brings command center information to the operational combat teams or to the individual warfighter where they need it most.

The ultra-lightweight, compact design delivers much needed capabilities to support full-spectrum operations. The system operates over military-owned Ka-Band satellites, which provide both low cost (no satellite access fees) and incredibly wide bandwidth over Worldwide Global SATCOM (WGS) satellites. The rapid set up, short signal acquisition time, and simple user interface enables warfighters to deliver precise crushing blows to the enemy while negotiating dangerous non-linear battlefields.

Built combat tough, the portable GBS receive suite is modular and scalable making it adaptable for operations specific to any mission. It is ideal for use in low-visibility or urban terrain operations where traditional satellite dish technology is too high-profile. The AN/PRS-12 is HAIPE compatible for Type 1 Crypto. The AN/PRS-12 supports up to Top Secret communications, for information to keep teams safe and reduce collateral damage.

The AN/PRS-12 Rucksack Portable GBS Receive Suite by AQYR is the new combat force multiplier. It contributes to combat team modernization, helps the warfighter dominate terrain and win battles, but more importantly, it improves situational awareness and survivability by delivering unparalleled bandwidth for Intelligence, Surveillance, Reconnaissance (ISR) and Full Motion Video (FMV).
AN/PRS-12 Specifications

Rucksack Portable Receive Suite (RPRS) contains:

- Rucksack Portable Receive Terminal (RPRT)
- Power Conditioning Unit (PCU)
- Integrated Receiver Decoder (IRD)
- Rugged Handheld Computer
- All necessary Power & Communication cables
- Crypto device not shown

Rucksack Portable Receive Terminal (RPRT)

Rucksack Portable Receive Suite in Shipping case

Rucksack Portable Receive Broadcast Manager (RPRBM)
Receive Broadcast Manager includes a Rugged Handheld Computer, which ships with the latest software

Size: 22.5” Length x 11.25” Width x 6” Depth (Stowed)

Weight: Total system weight is 22 lbs - no batteries

Environmental Testing:
- Operating: -22°F to 140°F (-30°C to 60°C)
- Storage: -40°F to 160°F (-40°C to 71°C)
- Drop: 26 drops from 36in (.914m), (not in transit case)
- Vibration: Method 514.5C-17, Procedure II
- Loose Cargo: Method 514.5, Procedure II
- Sand & Dust: Method 510.4, Procedure I & II
- Water: Method 506.4, Procedure I
- Humidity: 95% RH, temp cycle 68°F to 140°F (20°C to 60°C)
- Altitude: 15,000 ft (4572 m)
- Solar: 120°F (49°C) + solar loading

Operation:
- G/T: 12.3 dBK
- Capability: DVB-S (ETS 300421) & DVB-S2 (EN 302 307) demodulator and FEC decoder compliant
  - Fully compliant DVB/MPE & PES, IP, MPEG-2
  - Unicast, Multicast, Broadcast Routing and Bridging
- Performance: DVB-S2: QPSK & 8PSK modulations, 0.1 – 45Mps
  - DVB-S: QPSK modulation, 0.1 – 45Mps
    (tested up to 51.8 Mbauds)
  - IEEE802.3 10/100Mbps IP interface
- LNB Gain: 55 dB
- LNB Noise Figure: 1.3 dBNF
- LNB Noise Temp: 110.3 K
- Antenna Gain: 36.2 dBi
- Antenna Noise Temp: 130.6 K
- Setup Time: Less than 2 minutes (typical)
- GPS/Boot Time: Less than 3 minutes (typical)
- Acquisition Time: Less than 2 minutes (typical)

Power: DC Input 24 VDC, AC input 100 – 240 VAC 50/60 Hz