

DXW800PLT SERIES

The DXW800PLT is a high-performance transportable Paging Transmitter based on the state of the art DX Radio Systems DXW800 series base/repeater/paging transmitter. The unit is constructed to withstand the rugged emergency service environment. The Paging transmitter and link receiver and built in accessories are mounted in a floating sub-chassis that is suspended in a rubber gasket.

Additionally, the batteries are mounted dedicated pockets and are also independently isolated from the chassis ("suspended") by means of rubber gaskets.

The DXW800PLT features an interface that is accessible through an internally locked sealed stainless steel access panel. Depending on options purchased, the featured connectors are:

- Receive antenna (also operates as TX/RX antenna with duplexer option)
- Transmit antenna (TX/RX antenna fitted with Duplexer Option)
- AC power (includes standard option PSP11012BU)

Bayonet Lock Mil-C-26482 Series 1 Type Multi-purpose interface socket supporting the following optional functions and accessories:

- 12V (13.8V) DC Power In
- Programming interface
- Interface to PC based monitoring of system
- Test facility interface
- Battery/power supply status LCD (includes SP11012BU option)
- Full set of status indicator LEDs
- 99 Channel LED display
- DC in/out Switch (allows for powering external options)
- Radio Power Switch (disconnects radio from batteries)
- Digital Volume control (push up/push down for monitor speaker)
- Simplex Duplex switch (Not used in paging configuration)
- Programming, Speaker mute, Ext. Speaker/Headset switch
- Display/LED power saver (disable switch)
- 99 Channel selector switch via dual rotary controls (tens & units).



OPTIONS

Following is a list of standard options available for the DXWP Transportable Repeater-Base stations:

Option PSP11012BU (included in standard package "A")

AC Power option with built-in DC power supply/battery charger 110V input, 12 V output with Low voltage battery disconnect, microprocessor controlled

Option OPA-12-12 and OPA-12-24 (OPA-12-24 included in standard package "A")

Built-in 12 or 24 Ah battery capacity; capable of running the transceiver for up to 3 hours at full rated power for a 100% transmit duty cycle; up to 24 hours on a 20% transmit duty cycle

Option PDS11012 (included in standard package "A")

External DC Power input with auto-switchover relay (automatically disconnects batteries and provides trickle charge to batteries during external DC operation)

Option MXOT14 (included in standard package "A")

99 programmable channels with channel selector switch and 99 Channel LED display

Option SPKRVC350 (included in standard package "A")

Built in monitor speaker with volume control and disable switch

Option ANTXXXX (shown for reference; XXXX represents band and model).

Antennas for all bands available – please contact your DX representative.

Option ANTPORT2500

Portable antenna towers.

Option LMR400U (req. 50 FT per antenna; LMRU400U-50)

Flexible Low-loss Antenna Cable for use with Portable antenna towers.

Option IPPORT250 (Standard option included with standard package "A")

Built-in 30 dB Intermodulation and Power Amplifier protector highly recommended for operating on portable antennas.

Note: Some features listed are available as options Minimum performance to exceed the following for 30MHz to 960MHz*:

- AS4295-1995,
- ETS 300 086 Jan 1991, ETS 300 113,
- ETS 300 279,
- CEPT T/R 24-01 E Sept 1988,
- RFS25, RFS26, RFS32,
- TIA/EIA-603,
- BAPT 225 ZV 1/2098 (German soft keying),
- FCC Part 22, 74, 90, 90.210, 80.475,
- MIL-STD-810E (Parts thereof),
- EC Marking, EC EMC Directive 89/336/EEC.

*Conforms but not all approved.

GENERAL

Frequency Range:	Coverage 30-960 MHz.
Power Supply Battery charger: Microprocessor controlled	External DC Power: Reliable heavy duty Multi-purpose DC connector
Functions Power supply Charge and Trickle	20' long heavy duty DC power cord with battery clips 20' DC cord with cigarette lighter connector Auto switchover to external DC source
Input Voltage 90-130 VAC 4-Amp AC Fuse	Input voltage 11-15 Volts DC at 10 Amps max. 15A DC fuse

GENERAL

Batteries

Residual capacity
due to self-discharge
at storage @ 25°C
3 months 91%
6 months 82%
12 months 64%

Battery replacement

Expected life 3-5 years
Recommended
replacement cycle 24 months
Easy access after
removal of top cover

Synthesis Method:	Non-mixing PLL. Fractional N synthesizer.
Modulation:	Direct FM two-point method.
Channel Spacing:	50kHz, 30kHz, 25kHz, 20kHz or 12.5 kHz.
Synthesizer Step Size:	25kHz, 12.5kHz, 10kHz, 7.5kHz, 6.25kHz or 5kHz.
Channels:	255 Software or switch selectable, 1-99 BCD or 255 Binary parallel selection.
Supply Voltage:	13.8 +/- 20%.
Power Consumption:	<600 mA receive, typically 460mA. <11A for 50W TX RF.
Operating Temperature:	-10 to +60C. -30 to +60C option.
MX800P Size:	230 mm (9") high x 380 mm (15") deep x 550 mm (21.5") wide, High-impact Case
Approximate Weight Fully Loaded:	25 kg, 55 LBs
Optional LED indicators**:	Power, RX, TX, CTCSS, Aux/Lock, Alarm.

TRANSMITTER

MEASURED IN ACCORDANCE WITH TIA/EIA-603 STANDARDS RF Power Output: 5W to 50W (30-520MHz).
5W to 35W (800-960MHz).

Frequency Stability:	20PPM, 2.5PPM, 1.5PPM or 1.0PPM.
Audio Response:	Flat within +1,-3dB across BW.
Audio Bandwidth:	DC to 3400Hz (DC FM input). 300Hz to 3400Hz (VF input).
Modulation Distortion:	Less than 2% @ 60% deviation.
S/N Ratio:	Better than 50dB, (WB). Better than 44dB, (NB).
Spurious:	Better than -90dBc.
Analog/Digital Modulation @ Ch. Spacing	25 and 12.5 kHz
RF Switching Bandwidth Exciter:	Same as band allocation.
RF Switching Bandwidth PA:	> 10MHz nominal, wider on special request.
Duty Cycle:	100% for 35W or 50W RF output with thermostat controlled fan and open side panels
RF Rise Time:	4mS with continuous VCO selected (Controlled RF envelope).
Typical Supply current (470MHz):	50W:8.6A, 25W:6.2A, 15W:5A, 10W:4.3A, 5W:3.3A, 1W: 2.1A.
VCO Conducted Emissions:	Less than -70dBm.
VCO Radiated Emissions:	Less than 1uV @ 1M.

RECEIVER

MEASURED IN ACCORDANCE WITH TIA/EIA-603 STANDARDS

Sensitivity:	Better than -117dBm for 12dB SINAD ,
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**Specify if desired

RECEIVER

Selectivity 805-960MHz:	More than 70dB for 25kHz adj channel, more than 65dB for 12.5kHz adj channel,
Audio Bandwidth VF output:	300Hz to 3000Hz (+1,-3dB).
Discriminator Output Bandwidth:	DC to 3400Hz (-3dB).
Spurious Response Immunity:	Better than 90dB. 100dB option available.
Intermodulation Immunity:	Better than 80dB (100kHz / 200kHz offset)
Blocking:	Better than 100dB at +/- 1MHz point.
Distortion:	Less than 2% @ 60% deviation.
S/N Ratio:	Better than 50dB (WB). Better than 44dB (NB).
Co-Channel Rejection:	Better than 5dB.
RF Switching Bandwidth:	Equal to band allocation.
Receiver Front End BW:	Equal to band allocation, no retuning.
VCO Conducted Emissions:	Less than -70dBm.
VCO Radiated Emissions:	Less than 1uV @ 1M.

ANCILLARIES

Link Demodulator:	Custom version of Zetron Model 66
Tx Timer:	Programmable, on/off selectable.
VF Level to Line:	+6 to -15dBm, 600 ohms unbalanced or differential.
VF Level from Line:	+6 to -15dBm, 600 ohms unbalanced.
Pre-Emphasis Accuracy:	Within +/-1dB of 6dB per octave curve.
De-Emphasis Accuracy:	Within +/-1dB of 6dB per octave curve.
VF Compressor Range:	>30dB for line input.
Control Outputs:	1K ohm 5V source/sink available.
Alarm Output:	Open collector.
PTT Input:	Logic CMOS/TTL compatible.
Channel Select:	8 way Dip switch or RS232 or BCD/ Binary.
Repeater Tail Timer:	Programmable 0, 1 or 2 seconds.

Due to ongoing development we reserve the right to alter specifications without notice.

NB: Rev 6 specification to be supplied as standard after stock depletion of previous model.