



**Newport  
County Radio  
Club**

May 11, 2026



# QRP Corner

This month's QRP Corner will discuss ways of powering your QRP rig

A Xiegu G106 QRP transceiver will be shown



# Powering QRP

- Many QRP rigs are designed to run at 13.8 volts (notable exception for the QRP-Labs radios which need 12.0 volts)
- Receive current runs from a low of 0.08 amps to 0.40 amps
- Transmit current runs from a low of 0.70 amps to 3.0 amps (some rigs  $> 5$  watts)



# Typical Current

Brand	Model	RX Current	TX at 5W	TX Max
Elecraft	KH1	0.06	1.00	1.00
Elecraft	KX2	0.15	1.00	2.00
Elecraft	KX3	0.18	0.75	2.40
Icom	IC-705	0.30	2.50	3.00
QRP Labs	QMX	0.08	0.80	0.80
QRP Labs	QMX+	0.08	0.70	0.70
Xiegu	G106	0.35	1.70	1.70
Yaesu	FT-818	0.40	2.20	2.20



# How big a Battery?

“It Depends!”

(What radio & how long)

- Recent KX3 POTA activation:
  - 2 hours radio on-time, 1/3 TX, 2/3 RX
  - Took 0.75 Amp-Hours
  - A 3.0 AH battery would last 8 hours!
- Using QMX+, a 3.0 AH battery would last 10+ hours
- Using G106, a 3.0 AH battery would last 3.75 hours



# What Kind of Battery?



8 cell AA Battery pack ~ \$5

Alkaline Cells ~ 12.0 volts 2.5 Amp-hours

Lithium Cells ~ 12.0 volts 3.0 Amp-hours

NiMH Cells ~ 9.6 volts 2.0 Amp-hours



# LiFePO4 Small Battery



Bioenno BLF-1203 3 AH (36 WH)

- Long life (10+years, 2000+ cycles)
- Battery ~ \$50
- Battery + Charger ~\$65



# “PD” Battery w/Trigger

Anker Nano Power Bank – 30 WH version ~\$38

“PD” device supports 9v/12v/15v at 2.5 Amps or higher

USB-C “Trigger” to set voltage. Pack 5 for \$10. Purchase desired voltage. Typically 5.5mm x 2.5 mm barrel

USB-C Trigger cables exist with USB-C on one end, and barrel on the other.

Note: If you need a 5.5mm x 2.1 mm barrel connector, you can purchase an adapter.





# Xiegu G106



- 80-10 meters with 6-8 watts Output
- AM/FM/CW/SSB
- Small size, 1.6 pounds
- Comes with mic & keyer (need paddle)
- 0.4 amps RX, 1.7 amps TX
- Can do FT8 with optional DE-19 external accessory ~\$70

Typically ~\$210 in US.