

# AR-FS-20 SERIES FAST SWITCHING AMPLIFIERS



Enhanced battlefield data links using the AR-FS-20 series of booster amps provide greater distance and reliability for today's tactical networks. This new series of amps offer 20 Watts output power with switching speeds under 2  $\mu$ s to improve network performance.

These fully automatic T/R switching booster amps support the latest MANET waveforms as well as legacy and proprietary waveforms. Operating from a wide range input DC voltages, the AR-FS-20 can be deployed in many applications including vehicles, dropkits, and aircraft.

Our battle tested amplifiers include over temperature protection, RF sensing, T/R Switching, automatic level control (ALC), harmonic filters, and protection against antenna mismatch.

## FEATURES & BENEFITS:

- 20 Watts
- Fast T/R switching - under 2  $\mu$ s
- Fully automatic, Auto-sensing, T/R switching booster amplifier with automatic harmonic filtering
- Radio & waveform agnostic
- Mobile form factor
- NVG compatible interface
- Optional DC power cables available
- Waveforms supported: TSM, WREN, AM, FM, ANW2, IW, DAMA, SRW, HPW, SINCGARS, HAVEQUICK I and II, Frequency Hopping, CDMA/WCDMA, OFDM and more
- Supports Multiple Radio Platforms: AN/PRC-117G, AN/PRC-152, AN/PRC-148 (MBITR/JEM), AN/PRC-163, AN/PRC-167, AN/PRC-154 Rifleman™ Radio, AN/PSC-5D, AN/ARC-210, and more

Extending the range and quality of tactical radios has never been easier - or faster! The AR-FS-20 series is designed for easy operation with minimum operator intervention for rapid deployment.



# AR-FS-20 SERIES FAST SWITCHING AMPLIFIERS

## Features

**AR-FS-20LS**



**AR-FS-20U**



**AR-FS2-20LS**  
Available Q3 2025  
(Specs Preliminary)



**AR-FS2-20VU**  
Available Q4 2025  
(Specs Preliminary)



|   |  |  |  |   |
|---|--|--|--|---|
| Power Output                                | 20 Watts total channel power           | 20 Watts total channel power           | 20 Watts total channel power           | 20 Watts total channel power                                  |
| Frequency Range                             | 1250 MHz-2600 MHz                      | 225 MHz-450 MHz                        | 1250 MHz-2600 MHz                      | 30 MHz-512 MHz  |
| Input Power                                 | 2W CW / PEP                            | 2W CW / PEP                            | 2W CW / PEP                            | 2W CW / PEP   |
| T/R Switching Speed                         | Under 2 $\mu$ s                        | Under 2 $\mu$ s                        | Under 2 $\mu$ s                        | Under 2 $\mu$ s (225-512 MHz)<br>Under 5 $\mu$ s (30-225 MHz) |
| Receive LNA Gain                            | 10 dB+                                 | N/A                                    | 10 dB+                                 | 10 dB+  |
| Insertion Loss                              | 2.0 dB (LNA Off)                       | 1.5 dB                                 | 1.5 dB (LNA Off)                       | 1.5 dB (LNA Off)  |
| Bypass Tx Insertion Loss                    | 1.5-2.0 dB                             | 1 dB                                   | 1 dB                                   | 1 dB  |
| Harmonic Performance                        | Better than -60 dBc                    | Better than -60 dBc                    | Better than -60 dBc                    | Better than -60 dBc   |
| DC Input Voltage                            | 18 to 36 VDC                           | 18 to 36 VDC                           | 12 to 36 VDC                           | 12 to 36 VDC  |
| Power Consumption (Tx)                      | 140 W                                  | 72 W                                   | 100-120 W                              | 100-120 W   |
| Operating Temperature                       | -30 to +60°C                           | -30 to +60°C                           | -30 to +60°C                           | -30 to +60°C  |
| Duty Cycle at Ambient, no Force Air Cooling | 90%                                    | 90%                                    | TBD                                    | TBD   |
| Standards                                   | MIL-STD-810, MIL-STD-461, MIL-STD-1399 | MIL-STD-810, MIL-STD-461, MIL-STD-1399 | MIL-STD-810, MIL-STD-461, MIL-STD-1399 | MIL-STD-810, MIL-STD-461, MIL-STD-1399                        |
| Immersion                                   | IP67                                   | IP67                                   | IP67                                   | IP67  |
| Size (H x W x D)                            | 5.0 x 3.0 x 7.4                        | 5.0 x 3.0 x 6.9                        | 1.86 x 3.75 x 8.78                     | 1.86 x 3.75 x 8.78  |
| Weight                                      | 4.5 lbs.                               | 4.5 lbs.                               | ~2.6 lbs.                              | ~2.6 lbs.   |