

RM2-HVM with 2G ALE Software Option

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Embedded in the RM2-HVM unit, the 2nd Generation Automatic Link Establishment (2G ALE) Controller is activated with the appropriate AT Comms license key.



Features:

- ✓ Menu-Driven ALE Setup
- ✓ User-Friendly control and configuration
- ✓ Short messaging (AMD)
- ✓ Works with RC50 Email (STANAG 5066)
- ✓ Built-in Radio Control Protocols
- ✓ Link Quality Analysis (LQA)
- ✓ SINAD / BER Thresholds
- ✓ LQA Polling
- ✓ Automatic Hand-Off to Modem
- ✓ ALE Remote Control Capability
- ✓ Emergency Operator break-in
- ✓ Standard HF modem waveforms included (see the AT Comms RM2-HVM HF Data Modem data sheet).

No operator intervention required for linking

The embedded ALE capabilities in the RM2-HVM provide great benefits including the ability to link to other HF stations without operator intervention offering a number of frequencies to overcome variable HF propagation conditions. The ALE Controller performs all the basic protocol functions for individual calling, one-to-many calling, sounding and scanning up to 5 channels per second.

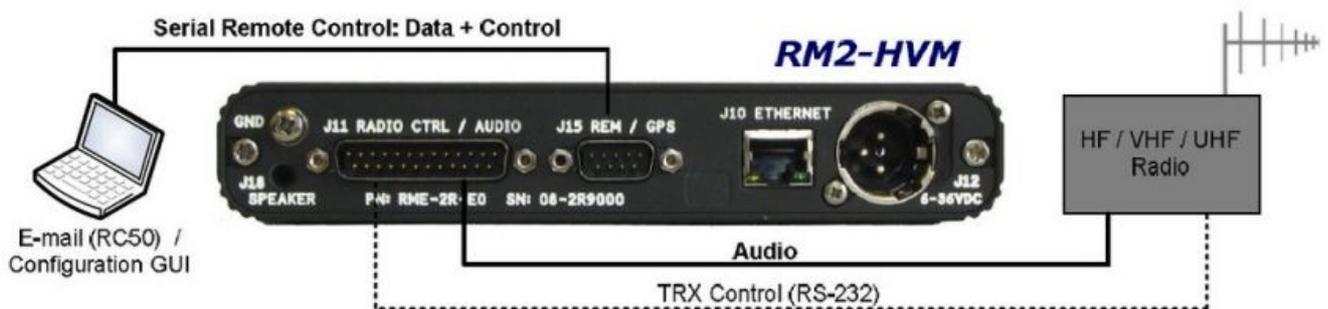
ALE Features:

- ✓ MIL-STD-188-141B App. A
- ✓ FED-STD 1045
- ✓ Individual Calls
- ✓ Group, Net Calls
- ✓ All, Any, Wildcard Call
- ✓ AMD, DTM, UUF
- ✓ Sounding
- ✓ Scanning (2 or 5 chan./sec)
- ✓ Automatic channel selection

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Remote Control

The unit is fully controllable via RIPC/RAP1 remote control protocol (available from AT Comms). To set up the link, the 2C ALE Controller calls first on channels with the best LQA score. The LQA is obtained by continuously listening to sounds and calls from other stations. MIL-STD-188-141B, App. A has mandatory requirements for Occupancy Detection and Listen before transmit (2nd generation ALE).



Typical System Configuration

Higher level of connectivity

Using an ALE network over a number of frequencies offers a much higher level of connectivity compared with using a single frequency.

When not otherwise committed, the ALE Controller continually scans the pre-selected set of channels, listening for calls.

When the self-address is detected and a link is established, data or voice communications are automatically initiated by switching the chosen high-speed data modem into the circuit.

The ALE Controller initiates a sounding signal at programmable intervals and then uses the received sounding broadcast to evaluate the connectivity and availability of links for later use.

Simple ALE Network Configuration and Remote Updates

AT Comms provides 2G ALE configurations PC software, which will clone a basic configuration onto a number of RM2-HVM units, leaving only the self-address parameters to be set individually.

Finally, the ALE configuration can be remotely updated, and saved in one of twenty available custom preset memories in the RM2-HVM unit. All the 2G ALE configuration parameters are factored into checksums so that ALE settings can be verified between network nodes.

Standard	Characteristics
2G ALE MIL-STD-188-141B APPENDIX A, B & FED-STD 1045 FED-STD 1049	Automatic Link Establishment 2nd Generation (2G ALE) <i>Occupancy detection waveforms:</i> MS 110A/B, S 4539, S 4285, S 4415, S 4529, S 4481, 8-FSK and SSB Voice <i>Protocol:</i> Calling, AMD, DTM, <i>Excluding:</i> DBM, AQC-ALE <input checked="" type="checkbox"/> Programmable Radio Selection <input checked="" type="checkbox"/> Link Quality Analysis (LQA) <input checked="" type="checkbox"/> Scanning (2 or 5 channels per second) <input checked="" type="checkbox"/> Automatic Sounding <input checked="" type="checkbox"/> Automatic Hand-Off to Internal Modem



Rear panel of the RM2-HVM Unit

Supports Numerous Radios

The RM2-HVM has numerous radio interfaces embedded and new radio types may be added upon customer request:

- ✓ Yaesu System 600
- ✓ Vertex Standard 600
- ✓ Barrett 950, 2050
- ✓ ICOM Amateur and Marine
- ✓ Kenwood TS-50, TS-480, TS-2000
- ✓ SGC 2000 Power Talk 150
- ✓ JRC JSB-196GM (High-sea)

If a particular mobile HF radio is not ALE capable, the DC power supply allows the RM2-HVM unit to be used as an external ALE Controller for the radio.

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