

VDB

Airtel ATN is an independent supplier of data communication software for the ATN (Aeronautical Telecommunication Network). Airtel ATN has been active in ATN and the aviation industry since 1993 and is an international leader in the development of ATN communications software.

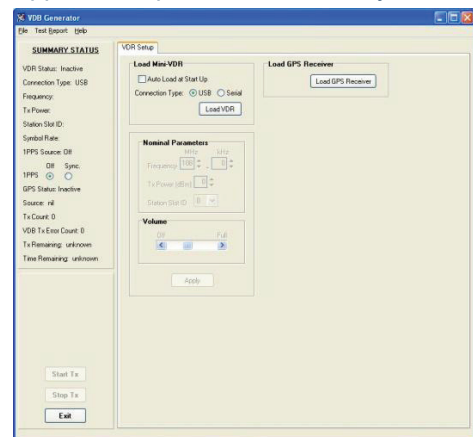
Airtel ATN's Data Link **VDB** solutions consist of the following:

VDB Generator

The VDB (**VHF Data Broadcast**) Generator is a software application that also utilises the D8PSK capability of the Mini-VDR hardware. It simulates a VDB/GBAS Ground Station by providing a versatile source of VDB messages to exercise message decoding in the aircraft VDR or MMR under test. Depending on the test undertaken, the VDB Generator application provides the ability to construct fully compliant DO 246 Type 1, 2 and 4 messages, or constructs data sequences designed to test the upper or lower level decoding. The VDB Generator can be extended with a GPS Receiver to provide live GPS Data for DO-246 Type 1, 2 messages.

VDB Generator facilitates DO-253 MOPS testing including:

- Steady carrier
- Amplitude variation within allocated time slot
- Frequency
- Transmit power
- Symbol rate
- Corruption of CRC values
- External 1PPS sync available with GPS Receiver



VDB Analyser

The VDB Analyser is fully portable VDB analysis system, capable of monitoring GBAS (GRAS or LAAS) transmissions including Type 1, 2, 4 and 101 messages. It uses the Mini-VDR to receive local VDB broadcasts. In passive *monitoring mode*, the application provides the ability to view the contents of both raw and interpreted messages.

- Monitors message content, data interval, transmission slot, station slot identifier (SSID) and a range of RF parameters
- Message filters allow the focus of display and interaction to be limited to nominated station ID, slot ID and/or message type
- All data is logged and can be later reloaded for analysis
- In the *alarm mode*, a series of alarm conditions can be configured to produce variable warnings and test reports based upon conflicts
- When purchased with the NAV function, the VDB Analyser is capable of outputting differential corrections (sourced from received VDB Type 1 or Type 101 messages) to a connected GPS receiver where a DGPS solution is computed. The VDB Analyser then uses these DGPS solutions as a source of data for a range of computations, displays and exceedance alerts.

