The Advantages of the Lexycom Software Defined Radio

The functions of the majority of the conventional radios available in the market place today are hardware-dependent. Often times these radios cannot be reconfigured, adjusted, or fine-tuned. The constraint being that once such a radio is delivered to the end-user, the radio's functionality has already been predetermined.

Unlike these radios, the functions of radio transceivers manufactured by Lexycom Technologies are defined by the software. The Software Defined Radio technology offers a host of truly unique, versatile, and most importantly, user-reconfigurable features. A few of the SDR advantages are listed below.

Feature	Software Defined	User Selectable	Software Defined Advantage
Cryptography	√	√	AES, DES, 3DES.
Backward Compatibility	√	√	All radios are interoperable regardless of the production date.
On-board Firmware Bank	√	√	The user can store a variety of firmware into the radio's on-board Firmware Bank. It takes only a few seconds for the radio to re-program itself to support a completely new application or to provide a different set of features.
Adjustable RF throughput	√	√	As fast as 1 MB/s or as slow as 2.4 kb/s RF channel data communications.
Adjustable Frequency	√	√	Select the band, tune each channel with 0.25 kHz resolution.
Adjustable Modulation	√	√	Choice of modulation type.
Spread spectrum technique	√	√	Choice of FHSS or DSSS.
Network topology	√	√	Point-to-Point, Point-to-Multipoint, TDMA, or Peer-to-Peer.
Exchangeable data interfaces	√	√	The radio can be equipped with virtually any type of data interface and the user can change the radio's interface as needed. Interfaces types include RS232, RS422, RS485, USB, Ethernet, I2C, QSPI, analog/digital IOs.
One radio – multiple data channels	√	√	A single radio can support multiple (mixed types) data channels at once. For example, the user can use several IO lines along with the RS232 data channel.

L E X Y C O M T E C H N O L O G I E S , I N C

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