

8B Industrial Way
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DRFM (DIGITAL RF MEMORY)

DRFM0101-001

Features

- Instantaneous bandwidth: 500 MHz
- Sampling: 4-bit phase
- Frequency accuracy: 20Hz.
- Update rate: 640 MHz
- Throughput delay: <25 nanoseconds
- Phase modulation and P/N noise generation
- 60dB input dynamic range
- Operating temperature range -40C to 85C

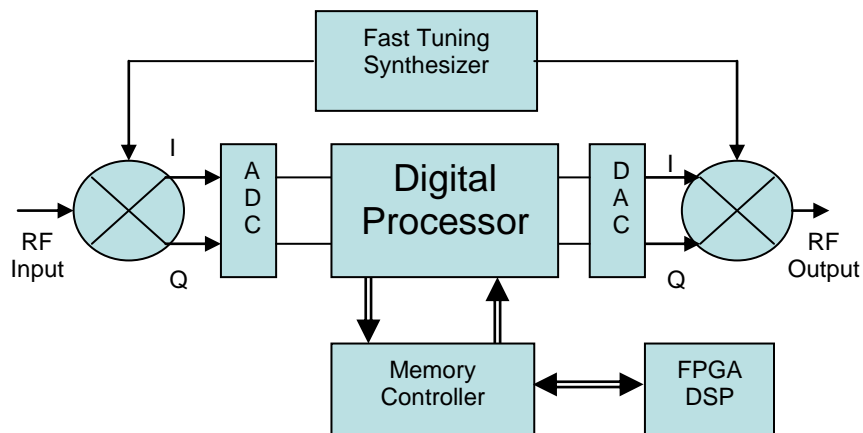


Item Description

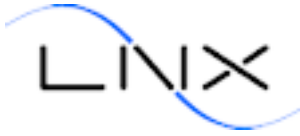
LNIX's DRFM (Digital RF Memory) offers truly advanced capability for electronic countermeasures. LNIX's proprietary custom 0.18 micron CMOS ASIC comprises the baseband component of a phase-sampled DRFM. The ASIC includes the phase-sampling circuit, digital processing, signal reconstruction and digital to analog outputs. Combining the ASIC with our line of UP/Down Converters, LNIX offers operation over the 2-18 GHz RF band.

The ASIC kernel is a key element to LNIX's DRFM products. Currently, our CPCI DRFM is user programmable and offers three modes of operation, pulse data storage, delay and re-transmission of signals. The architecture readily accommodates user inputs for RGPO, VGPO, noise and coherent techniques. The synthesizer is offered as an option.

Call for other detailed performance data, application information, data sheet, additional specifications and delivery.



Block diagram of a typical DRFM subsystem



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LNIX DRFM SPECIFICATION

DRFM Parameter	Specification
Instantaneous Bandwidth	500 MHz
DRFM IF Center Frequency	1 GHz
Input Dynamic Range	-30 dBm to 0 dBm
Output Power Range	0 dBm to +15 dBm (can be modified on request)
Flatness	< ± 1 dB
VSWR	2.0:1 max
Sampling	4 bits phase
Sampling Rate	640 MHz I/Q
Output Spurious	>17 dBc over 80% of band >30 dBc within 1 MHz of desired for 97.5 % of band
Minimum input pulse width	50 nsecs
Output Pulse width	Follows input signal to CW in recirculation mode
Recirculation phase correction	22.5°
Min throughput delay	35 nsec
Min throughput delay sampled	100 nsec
Delay resolution	6.25 nsecs
Write modes	Internal detect, external detect
Memory size	Capable of 4 files 200usec/file configured by request. Additional capability can be accommodated
Environment	-40 to +85 degrees C

Please contact LNIX for additional information on this and other products.