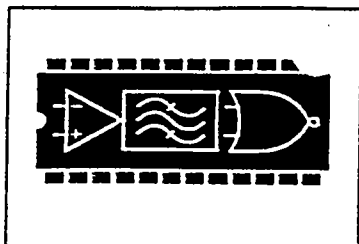


Exhibit A

MARKETS AND Frequency Blocks of Proposed operation (Channels on which System will operate)

Market/Channel Block				
1) Market Designator	2) Market Name	3) Channel Block	4) Sub-Market Designator	5) I am seeking a Tribal Lands Bidding Credit in this market
BEA031	Miami-Fort Lauderdale, FL	AP		No
BEA031	Miami-Fort Lauderdale, FL	AX		No
BEA031	Miami-Fort Lauderdale, FL	AY		No
BEA031	Miami-Fort Lauderdale, FL	AZ		No
BEA031	Miami-Fort Lauderdale, FL	BA		No
BEA031	Miami-Fort Lauderdale, FL	BB		No
BEA051	Columbus, OH	AI		No
BEA051	Columbus, OH	AJ		No
BEA051	Columbus, OH	AM		No
BEA051	Columbus, OH	AN		No
BEA051	Columbus, OH	AO		No
BEA051	Columbus, OH	AP		No
BEA051	Columbus, OH	AQ		No
BEA051	Columbus, OH	AR		No
BEA051	Columbus, OH	AS		No
BEA051	Columbus, OH	AT		No
BEA051	Columbus, OH	AU		No
BEA051	Columbus, OH	AV		No
BEA051	Columbus, OH	AW		No
BEA051	Columbus, OH	AX		No
BEA051	Columbus, OH	AY		No
BEA051	Columbus, OH	AZ		No
BEA051	Columbus, OH	BA		No
BEA051	Columbus, OH	BB		No
BEA055	Cleveland-Akron, OH-PA	AK		No
BEA055	Cleveland-Akron, OH-PA	AL		No
BEA055	Cleveland-Akron, OH-PA	AM		No
BEA055	Cleveland-Akron, OH-PA	AN		No
BEA055	Cleveland-Akron, OH-PA	AO		No
BEA055	Cleveland-Akron, OH-PA	AP		No
BEA055	Cleveland-Akron, OH-PA	AQ		No
BEA055	Cleveland-Akron, OH-PA	AR		No
BEA055	Cleveland-Akron, OH-PA	AS		No
BEA055	Cleveland-Akron, OH-PA	AV		No
BEA055	Cleveland-Akron, OH-PA	AW		No
BEA055	Cleveland-Akron, OH-PA	AX		No
BEA055	Cleveland-Akron, OH-PA	AY		No
BEA055	Cleveland-Akron, OH-PA	AZ		No
BEA055	Cleveland-Akron, OH-PA	BA		No
BEA055	Cleveland-Akron, OH-PA	BB		No



MX-COM, INC. Mixed Signal ICs

DATA BULLETIN

MX919B

4-Level FSK Modem Data Pump

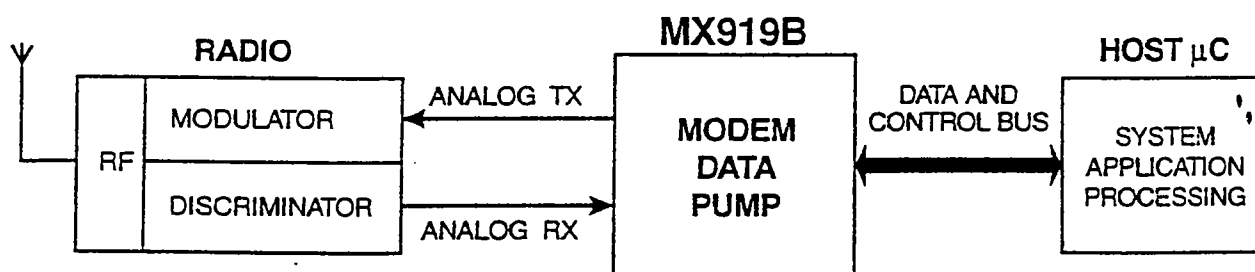
PRELIMINARY INFORMATION

Features

- 4-Level Root Raised Cosine FSK Modulation
- Half Duplex, 4800 to 19.2kbps
- Increase Channel Bit Rate/Hz
- Full Data Packet Framing
- Impulse and NRZ Signal Modes
- Enhanced Performance in Noisy Conditions
- Error Detection and Error Correction
- Low Power 3.3V/5.0V Operation

Applications

- Wireless Data Terminals
- Two Way Paging Systems
- Digital Radio Systems
- Wide Area Wireless Data Broadcasts
- Point to Point Wireless Data Links



The MX919B is a low voltage CMOS device containing all of the baseband signal processing and Medium Access Control (MAC) protocol functions required for a high performance 4-level FSK Wireless Packet Modem. It interfaces with the modem host μ C and the radio modulation/demodulation circuits to deliver reliable two-way transfer of the application data over a wireless link.

The MX919B assembles application data received from the host μ C, adds forward error correction (FEC) and error detection (CRC) information, and interleaves the result for burst-error protection. After automatically adding symbol and frame sync codewords, the data packet is converted into filtered 4-level analog signals for modulating the radio transmitter.

In receive mode, the MX919B performs the reverse function using the analog signals from the receiver discriminator. After error correction and removal of the packet overhead, the recovered application data is supplied to the host μ C. CRC detected residual uncorrected data errors will be flagged. A readout of the SNR value during receipt of a packet is also provided.

The MX919B uses data block sizes and FEC/CRC suitable for applications where high speed transfer of data over narrow-band wireless links is required. The device is programmable to operate at standard bit rates from a wide range of Xtal/clock frequencies.

The MX919B may be used with a 3.0V to 5.5V power supply and is available in the following package styles: 24-pin SSOP (MX919BDS), 24-pin SOIC (MX919BDW), 24-pin PLCC (MX919BLH), and 24-pin PDIP (MX919BP).

TRANSMITTER (900 MHz)

High RF Power Output	2.5 watts (standard mode)
Standard Models	2.0 watts (conventional talk-around mode)
Intrinsically Safe Models	2.0 watts at less than 1.55 A (standard mode)
	1.8 watt at less than 1.60 A (talk-around mode)
Low RF Power Output	1.0 watt (all models and modes)
Spurious and Harmonic	-60 dBc
FM Hum and Noise	-34 dB
Audio Distortion	5% maximum at 1 kHz
Audio Frequency Response	+1, -3 dB from a 6 dB per octave pre-emphasis characteristic
Audio Modulation	11K0F3E
Channel Spread	6 MHz (no degradation); 45 MHz (talk-around)
Current Drain (maximum)	Low Power - 1.3 ampere
	High Power Standard Models - 1.75 ampere (2.0 ampere talk-around)
	High Power Intrin. Safe Models - 1.55 ampere (1.60 ampere talk-around)
Load Impedance	50 ohms
Duty Cycle (6-6-48 seconds)	10%
(Transmit-Receive-Standby)	

FCC ID # ATH2428152-1

EFJohnson Avenger SI HL-93

Model 242-8152

RECEIVER

<i>Sensitivity</i>	:	0.35uV(12 dB SINAD)
<i>Selectivity</i>	:	-60dB
<i>Spurious Rejection</i>	:	-65dB
<i>Hum and Noise</i>	:	-35dB
<i>Intermodulation</i>	:	-60dB
<i>Audio Output Power</i>	:	0.4Watt
<i>Audio Distortion</i>	:	Less than 5% at rated output
<i>Audio Response</i>	:	+1,-3dB from stand De-emphasis curve
<i>Channel Spread</i>	:	6MHz(935 ~941MHz)
<i>Frequency Stability</i>	:	± 1.5 ppm from -30 degrees C to 60 degrees C
<i>Antenna Impedance</i>	:	50 Ω
<i>Current Drain</i>	:	70mA(Standby), 250mA(at rated audio output)

TRANSMITTER

<i>RF Power Output</i>	:	2.0 Watts
<i>Adjacent Channel Power</i>	:	-60dBc
<i>Spurious</i>	:	-60dBc
<i>Harmonics</i>	:	-60dBc
<i>FM Hum and Noise</i>	:	-35dB
<i>Audio Distortion</i>	:	5% maximum at rated modulation
<i>Audio Response</i>	:	+1,-3dB from standard pre-emphasis curve
<i>Audio Modulation</i>	:	11K0F1D, 11K0F3E, 10k5F2D
<i>TX Channel Spread</i>	:	6MHz(896 ~902MHz) 6MHz(935 ~941MHz)
<i>Frequency Stability</i>	:	± 1.5 ppm from -30 degrees C to 60 degrees C
<i>Load Impedance</i>	:	50 Ω
<i>Current Drain</i>	:	900mAh nominal

FCC ID # F3JTP4901C
MAXON TP-4901C

Exhibit E

Telephone and Two Way Inc (TTW), proposes to construct a multi-tower-site, two-way radio, mobile-data system to operate on the 900 MHz Multiple Address System frequency band. The system will consist of current production E.F. Johnson SMR Base station equipment controlled by custom designed data controllers, modulated by MX-COM Wireless Packet Data Modems.

TTW is requesting an Experimental License Authorization, to construct experimental mobile units for operation on this mobile data system. TTW proposes to repackage currently type accepted portable radio units with MX-COM wireless data-modems, and custom designed control hardware and software per the following:

1. TTW proposes to design, construct & operate a mobile data system consisting of existing type-accepted E.F. Johnson (EFJ) & Maxon transmitting equipment controlled by a MX-COM 4-Level FSK Modem Data Pump using 11K0F1D emission.
2. TTW plans to construct a package consisting of the above components along with TTW's custom control equipment. There will be no design or component changes made to the modulation or amplifier circuitry in the EFJ or Maxon transmitting equipment. Changes will be made only to the control circuitry of these units, which would include replacement of the factory installed logic boards.
3. Data operation will consist of MX-COM 4-Level Root Raising Cosine FSK Modulation of the EFJ & Maxon transmitters using a maximum deviation of +/- 2.0 KHz. This equipment will operate on the 900 MHz MAS band using standard channel spacing of 12.5 KHz.
4. The channel bandwidth of the mobile data system will be the same as the originally designed EFJ & Maxon transmitters, which are currently type-accepted for 11K0F1D emission.

TTW believes that there is a commercial need for this service. It will provide two-way text messaging with features such as guaranteed delivery, e-mail access, and global positing data for vehicle tracking. TTW believes that this system will take Multiple Address System two way radio to a new level of technology. With the new wireless, internet, and data services now available, this product will be a useful accessory to those types of services