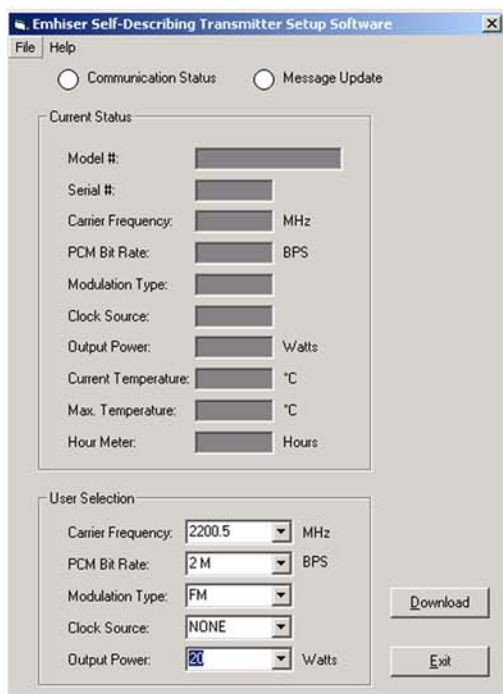




New!

Self Describing Transmitter with Serial interface



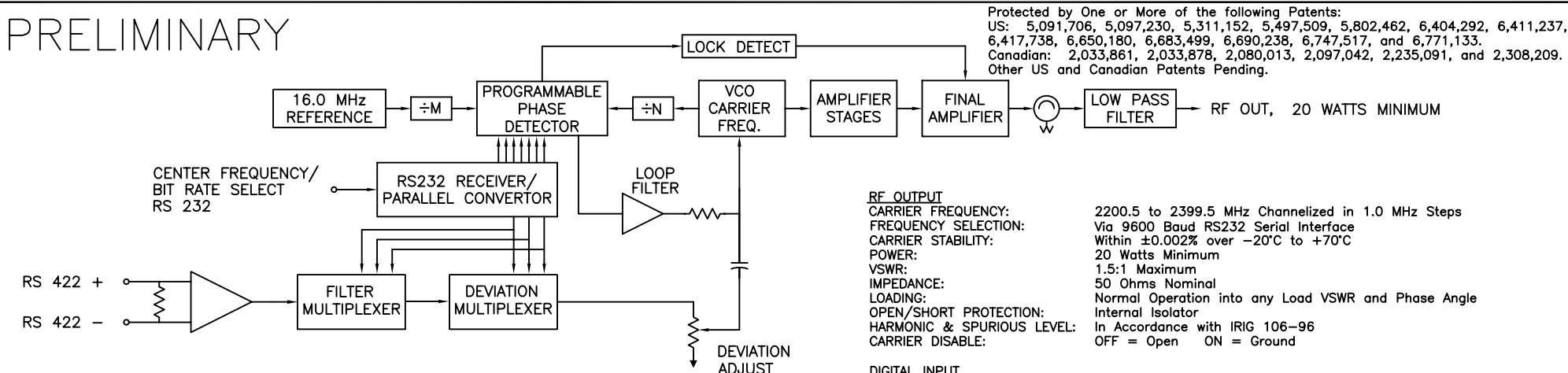
Execution Plan	
Phase 0	<ul style="list-style-type: none"> •Selectable carrier frequencies •8 selectable PCM bit rates •RF output power disable by opening two pins
Phase 1	<ul style="list-style-type: none"> •Temperature status
Phase 2	<ul style="list-style-type: none"> •Selectable output power •Power monitor status
Phase 3	<ul style="list-style-type: none"> •PCM RS-422 Serial Bit Clock •Selectable clock source •Selectable modulation type
Phase 4	<ul style="list-style-type: none"> •Full-duplex 10/100/1000 BaseT Ethernet control port

Design Feature	Benefit
Self Describing	The transmitter will relay its capabilities, current configuration, history, and internal measurements to the PC.
One Software Version	The same version of Emhiser's provided Visual Basic GUI interface allows interface and configuration control of various self describing transmitters including the multi-mode spectrally efficient transmitter.
Continuous ASCII coded Input and Output	Input and output RS-232/422 serial messages are coded in ASCII and are continuous at 1 message/sec (heartbeat) allowing easy input of alternate transmitter programming and easy output of transmitter status.
RF Output Power Disable	All power selections can be overridden by the RF power amplifier hardware disable by opening 2 pins.

Self Describing Digital Transmitter Model EMTI-11EBA203-01

Serial Interface Multiple Bit Rate 11 Cubic Inches 20 Watts AC Coupled Channelized 28 VDC

PRELIMINARY



Protected by One or More of the following Patents:
 US: 5,091,706, 5,097,230, 5,311,152, 5,497,509, 5,802,462, 6,404,292, 6,411,237,
 6,417,738, 6,650,180, 6,663,499, 6,690,238, 6,747,517, and 6,771,133.
 Canadian: 2,033,861, 2,033,878, 2,080,013, 2,097,042, 2,235,091, and 2,308,209.
 Other US and Canadian Patents Pending.

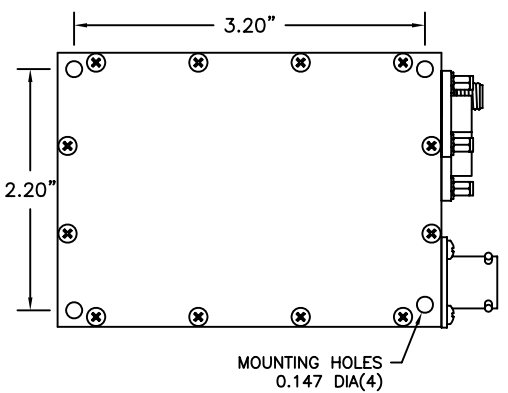
RF OUTPUT
 CARRIER FREQUENCY: 2200.5 to 2399.5 MHz Channelized in 1.0 MHz Steps
 FREQUENCY SELECTION: Via 9600 Baud RS232 Serial Interface
 CARRIER STABILITY: Within ±0.002% over -20°C to +70°C
 POWER: 20 Watts Minimum
 VSWR: 1.5:1 Maximum
 IMPEDANCE: 50 Ohms Nominal
 LOADING: Normal Operation into any Load VSWR and Phase Angle
 OPEN/SHORT PROTECTION: Internal Isolator
 HARMONIC & SPURIOUS LEVEL: In Accordance with IRIG 106-96
 CARRIER DISABLE: OFF = Open ON = Ground

DIGITAL INPUT
 LEVELS: RS422 Compatible
 BIT RATES: 50 Bits/Sec to 10 MBits/Sec
 (Specify up to 8 Bit Rates Maximum)
 BIT RATE SELECTION: Via 9600 Baud RS232 Serial Interface
 CONDITIONING: 6 Pole Bessel Low Pass Filter
 Factory Set to 0.70 X Selected Bit Rate
 Factory Set to ±0.35 X Selected Bit Rate
 DEVIATION: 1.0% Maximum BSL for ±0.35 X Selected Bit Rate
 DEVIATION NON-LINEARITY: 5% Maximum
 INCIDENTAL AM: 10 KHz Maximum
 INCIDENTAL FM: 100 Ohms Nominal
 INPUT IMPEDANCE: 100 Ohms Nominal

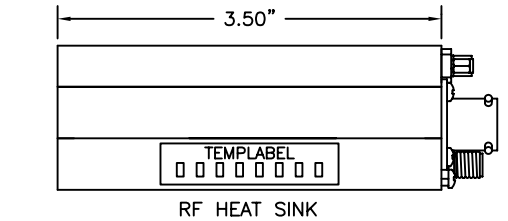
POWER REQUIREMENTS
 INPUT VOLTAGE: +28 ±4 VDC: Reverse Polarity Protected
 INPUT CURRENT: 4.0 Amps Maximum

ENVIRONMENTAL SPECIFICATIONS
 TEMPERATURE: Operating: -20°C to +70°C; Storage: -54°C to +125°C
 OVERTEMP SHUT DOWN: Shut Down: +70°C; Storage: -54°C to +125°C
 VIBRATION: 14 G's, Random, Standard Haystack, 20 Hz to 2 KHz, 3 Axes
 SHOCK: 1/2 Sine, 100 G's Pk, 11 ms, 3 Axes
 ACCELERATION: 100 G's, 3 Axes
 ALTITUDE: Unlimited
 HUMIDITY: To 95% at any Temperature forming Frost or Condensation

PHYSICAL CHARACTERISTICS
 DIMENSIONS: Per Outline Drawing
 WEIGHT: 14 oz. Maximum




- J3 PCM INPUT
 MDM-9P
 1 N/C
 2 N/C
 3 N/C
 4 PCM NRZL RS-422(+)
 5 PCM NRZL RS-422(-)
 6 PCM NRZL RS-422 SHIELD
 7 GROUND
 8 GROUND
 9 N/C



J1-POWER INPUT
 'A' +28 VDC
 'B' N/C
 'C' Ground
 'D' Ground
 #PT02H-8-4P

J4-RS232/422
 FULL-DUPLEX PGM/STATUS
 MDM-25P
 J2-RF OUT
 SMA Female

DATE	05 08 08	 EMHISER RESEARCH, INC. 2705 OLD HIGHWAY 40 WEST TEL: 775-345-2705 P.O. BOX 189 VERDI, NEVADA FAX: 775-345-2484 89439-0189 U.S.A. EMAIL: INFO@EMHISER.COM
DWN	L3	
APVD	DIGITAL TRANSMITTER, 20 WATTS CHANNELIZED, AC COUPLED, MULTIPLE RATE 2200.5 TO 2399.5 MHz	
QC		
CAGE CODE IDENT NO.	60666	MODEL NO. EMTI-11EBA203-01

