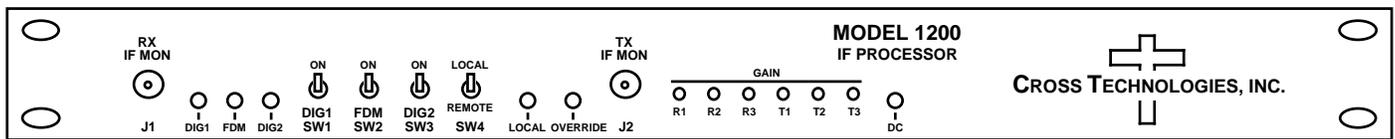


## 1200-05 IF Processor, Filtered AGC Detection, 70 ±0.2 MHz

The 1200-05 IF Processor has a transmit and receive side. The receive side signal passes through an Automatic Gain Control (AGC) amplifier (using a narrow SAW filter prior to the AGC detection circuitry so only energy at 70 ±0.2 MHz automatically controls the gain; if there is no energy in this region it will go to max gain in AGC). The output is split into three signals each having variable attenuators to adjust levels via front panel multi-turn potentiometers. The AGC amplifier adjusts a -95 to -15 dBm, 50 to 90 MHz IF input signal to a -30 dBm, +5, -15 dB output. A front panel connector provides a monitor signal directly out of the AGC amplifier, and front panel potentiometers adjust the attenuation (between 0 and 20 dB) to each of the three output signals, DIG1RX, FDMRX, and DIG2RX.

The transmit side has three transmit IF signals combined into one. DIG1TX, FDMTX, and DIG2TX signals each pass through individual attenuators controlled via front panel potentiometers and a switch that is controlled remotely through a DB9 connector or locally with three SPDT switches located on the front panel. A SPDT switch on the front panel selects either REMOTE or LOCAL operation. A local override feature is included such that when the REMOTE/LOCAL switch is left in the LOCAL position, the override pin on the DB9 can be set to override the LOCAL control and allow for REMOTE control.

DIG1 and DIG2 on both transmit and receive sides are 75Ω in/out while FDM on both transmit and receive sides are 50Ω in/out. When power is removed from the 1200-05, the FDM TX and FDMRX signals pass through to the output. IF connectors are TNC female. The 1200-05 is housed in a 1RU x 14" deep chassis and powered by a 100-240 ±10% VAC, 47-63 HZ input power supply.



### Front Panel

### EQUIPMENT SPECIFICATIONS\*

#### RX Input Characteristics

Impedance/RL 50Ω/18 dB  
 Frequency 50 to 90 MHz  
 Level range -15 to -95 dBm  
 1dB compression -10 dBm

#### RX Output Characteristics

Output Impedance/RL 50Ω,75Ω /18 dB  
 Monitor/AGC Out Level -30dBm, +5, -15 dB  
 Level Range, Nominal -30 to -50 dBm

#### RX Channel Characteristics

Gain, AGC -25 to +45 dB  
 AGC Resp. time, typ. 6 sec 10 dB step  
 Gain adjustment 0 to -20 dB  
 Frequency Response ± 1.0 dB

#### TX Input Characteristics

Input Impedance/RL 50Ω,75Ω /18 dB  
 Frequency 50 to 90 MHz  
 Level range -20 to +5 dBm

#### TX Output Characteristics

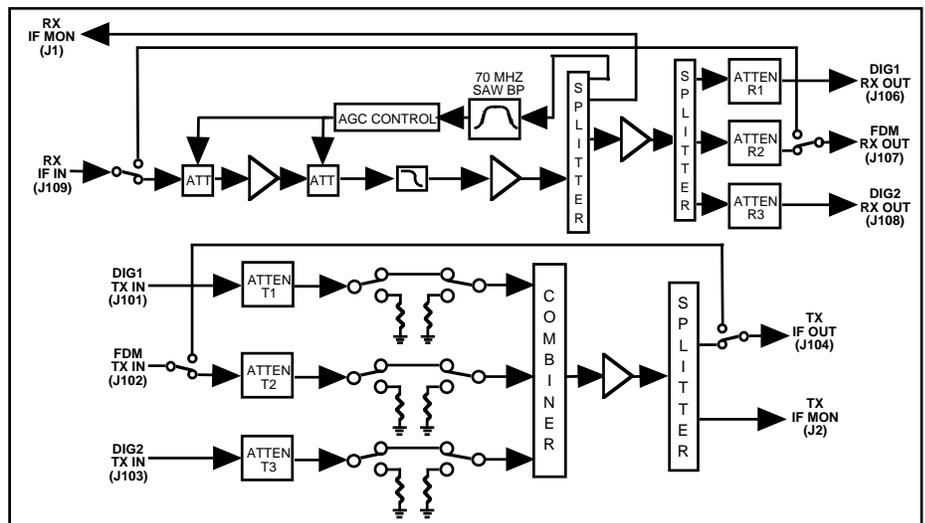
Impedance/RL 50Ω/18 dB  
 Level range +5 to -20 dBm  
 1 dB compression +10dBm

#### TX Channel Characteristics

Gain adjustment 0 to -30 dB  
 Frequency Response ± 1.0 dB  
 Group Delay, max ± 5 ns, max

#### TX Switch Characteristics

Isolation, Switch off ≥ 60dB  
 Isolation, Port to Port ≥ 50dB, all "ON"  
 Switch time ≤10 milliseconds



1200-05 Block Diagram

#### SAW filter prior to AGC detection circuitry typical characteristics

1 dB Bandedge (typ.) 69.9 MHz lower; 70.09 MHz upper  
 40 dB Bandedge (typ.) 69.56 MHz lower; 70.46 MHz upper

#### Controls/Indicators

DIG1TX,FDMTX,DIG2TX Green LEDs and SPDT switches  
 LOCAL/REMOTE Red LED and SPDT switch  
 OVERRIDE Yellow LED  
 POWER Green LED

#### Other

IF Connectors TNC (female)  
 Connector, DC, Control DB9 (female)  
 Size, 19 inch 1RU chassis X 14.0" deep  
 Power 100-240 ± 10% VAC, 47-63 Hz, 30 watts max

\*10°C to 40°C; Specifications subject to change without notice