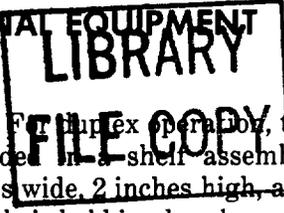


MASTERGROUP CONNECTOR J68953AF

DESCRIPTION

COMMON EQUIPMENT

ANALOG MULTIPLEX TERMINAL EQUIPMENT



	CONTENTS	PAGE
1.	GENERAL	1
2.	EQUIPMENT DESCRIPTION	1
3.	FUNCTIONAL DESCRIPTION	1

Figures

1.	Passive Mastergroup Connector—Front View	2
2.	Simplified Functional Block Diagram of Passive MGC Use	2
3.	Mastergroup Connector Block Diagram	3
4.	1122B Filter Characteristics	4

1. GENERAL

1.01 The J68953AF passive mastergroup connector (MGC) (Fig. 1) interconnects a basic U600 mastergroup signal from a receiving MGT-A or MGT-B terminal to a transmitting MGT-A or MGT-B terminal. As shown in Fig. 2, the interconnections are made either directly or through mastergroup distributing frames (MGDF).

1.02 This section is reissued to add information for the 984C equalizer and to delete the references. Arrows are used to indicate significant changes. *Equipment Test Lists are not affected.*

2. EQUIPMENT DESCRIPTION

2.01 The mastergroup connector circuit is mounted on a slide-in module measuring 10-5/8 inches

wide. For duplex operation, two slide-in modules are provided in a shelf assembly which measures 23 inches wide, 2 inches high, and 15 inches deep. Each module is held in place by a rear-mounted snap-slide fastener assembly.

2.02 The front panel of each slide-in module has a designation strip, a test jack designated TST, and two screwdriver controls (accessible by a sliding plate) designated LEVEL ADJ and EQL ADJ. Signal connections are made through two rear-mounted jacks designated IN and OUT.

2.03 Later mastergroup connectors include a 984C equalizer in place of the 984A equalizer (MD). The 984C equalizer permits easier level adjustment and contains a hybrid that improves the discrimination provided by the 1122B filter.

3. FUNCTIONAL DESCRIPTION

3.01 The passive mastergroup connector circuit (Fig. 3) contains an adjustable cable equalizer, an adjustable flat level attenuator, a bandpass filter (1122B), and a splitting hybrid. A signal enters the circuit via the IN jack and passes into the cable equalizer. The equalizer is adjustable in 50-foot increments for cable lengths between 50 and 600 feet. The signal leaves the equalizer and enters the level attenuator which provides from 1 through 18 dB of flat-level-attenuation adjustment by means of the LEVEL ADJ control. The signal then enters the 1122B filter which suppresses the 2.840-MHz mastergroup pilot by at least 40 dB within 45 Hz of the pilot. The filter also suppresses any signals above or below the basic mastergroup band and passes only the basic mastergroup signal (0.564 through 3.084 MHz excluding the 2.840-MHz pilot) with a nominal flat loss of 5.2 dB (Fig. 4). Finally, the signal goes to the hybrid where it is split into two equal-level sig-

NOTICE

Not for use or disclosure outside the
Bell System except under written agreement

nals. One signal is routed to the TST jack which is normally terminated by a 442A plug (75 ohms). The other signal follows the normal transmission path to the OUT jack.

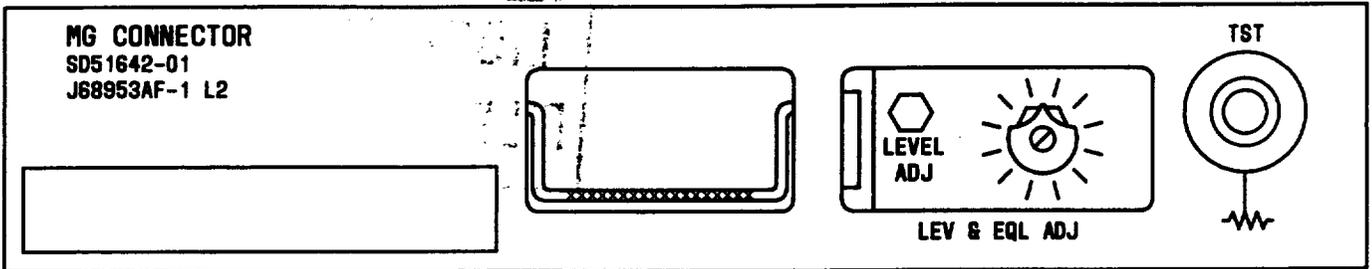
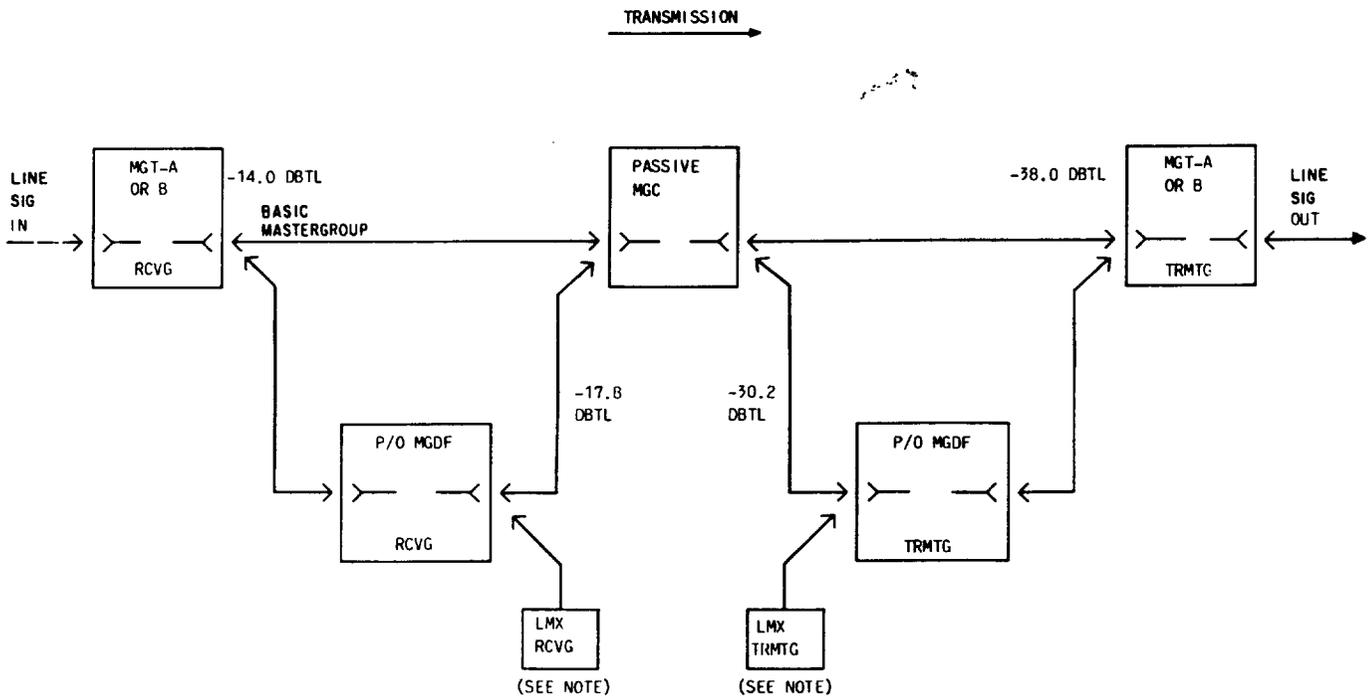
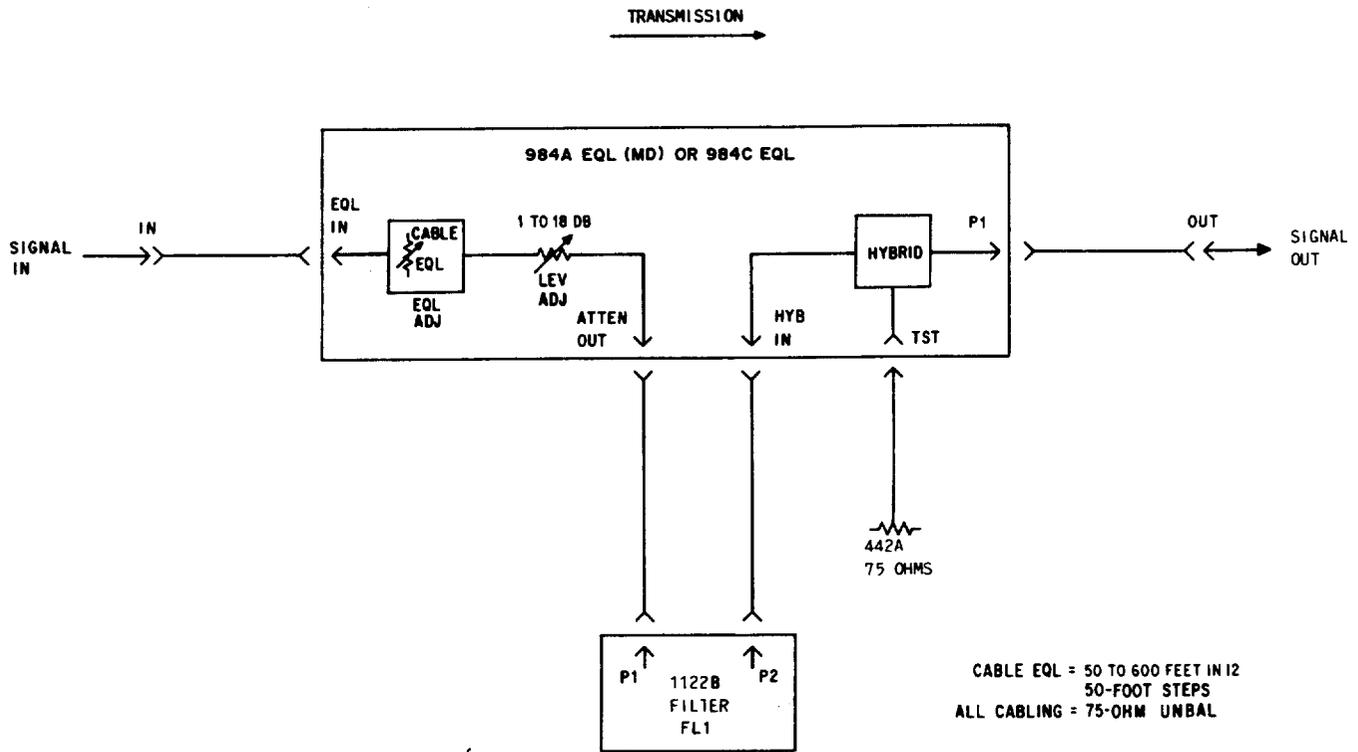


Fig. 1—Passive Mastergroup Connector—Front View



NOTE:
 PASSIVE MGC IS NOT REQUIRED WHEN MASTERGROUP
 TRANSLATORS ARE CONNECTED TO LMX FACILITIES
 (EITHER VIA MGDF AS SHOWN OR DIRECT).

Fig. 2—Simplified Functional Block Diagram of Passive MGC Use



◆ Fig. 3—Mastergroup Connector Block Diagram ◆

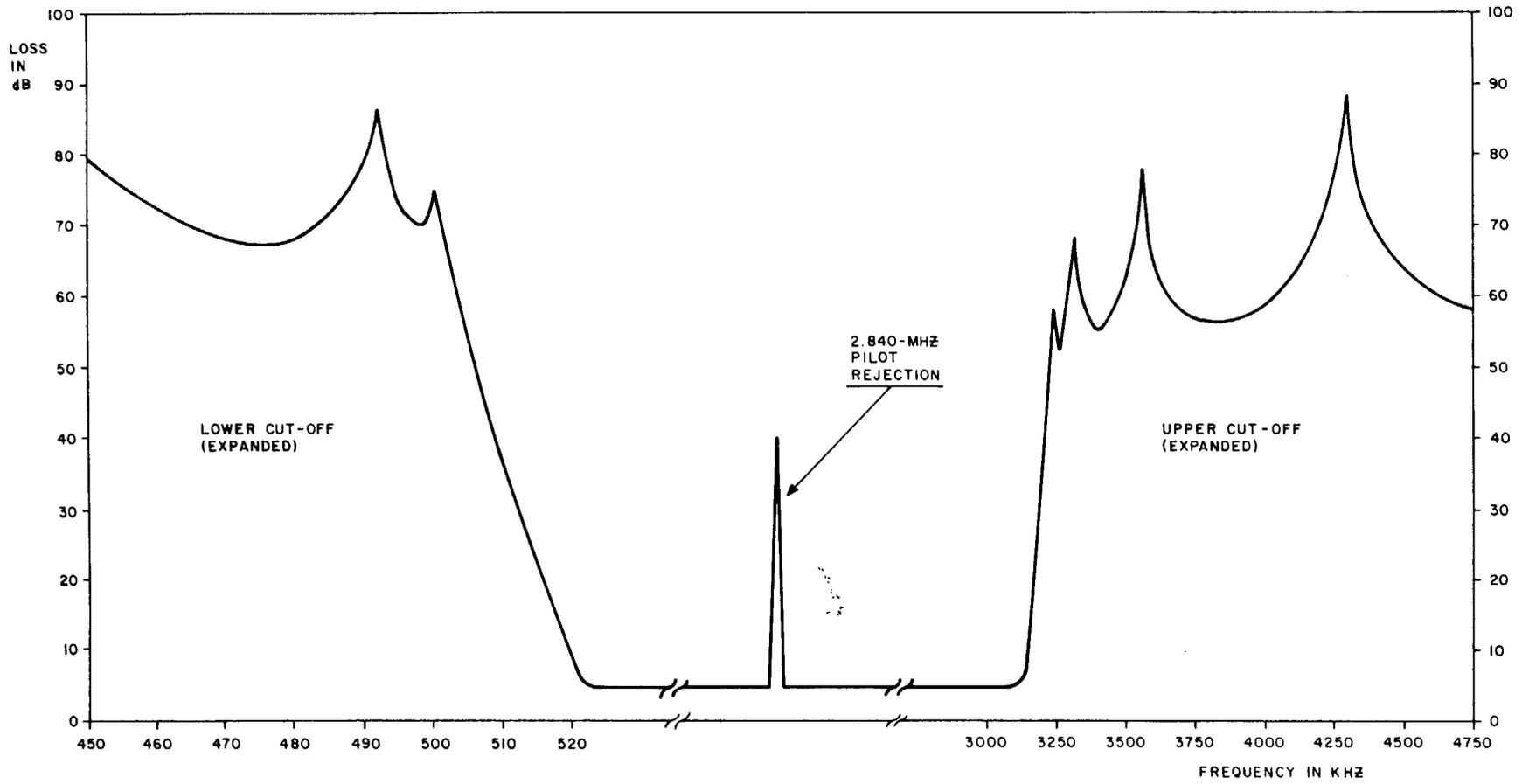


Fig. 4—1122B Filter Characteristics