

SOM-438A

4. TECHNICAL DATA

INPUT CHARACTERISTICS

Type	Two DS1 signals
Impedance	105 (± 10) Ohms (terminating)
Signal level	0.2 to 4V base-to-peak
Bit rate	1.544 ($\pm .01$) Mb/s

OUTPUT CHARACTERISTICS

Only the 438A-2 has extracted clock outputs;
each output has the same characteristics:

Internal impedance	50 Ohms
Output signal	Square wave at clock freq.
Signal level	.25V p-p into 50 Ohms

CONTROLS

POWER	Inserting a plug into the REF jack turns the power on.
DISPLAY pushbutton	Lights the FRAME SLIPS display when test set is battery operated.
RESET pushbutton	Resets the clock slip comparator and the frame slip counter to zero.

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TECHNICAL DATA (continued)

CONNECTORS

REF jack	Miniature jack for DS1 reference signal input.
TEST jack	Miniature jack for DS1 test signal input.
BAT CHG Jack	Connection point for the AC adapter/battery charger.
REF CLK OUT (438A-2 only)	BNC output connector for extracted clock from DS1 reference signal.
TEST CLK OUT (438A-2 only)	BNC output connector for extracted clock from DS1 test signal.

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TECHNICAL DATA (continued)

INDICATORS

CLOCK SLIP

Outer circle (16 lamps)	Each lamp indicates one Unit Interval (UI) of change.
Inner circle (12 lamps)	Each lamp indicates 16 UI of change.
Index (one lamp)	Indicates start and 193rd UI of change (equivalent to a full frame).

FAST/SLOW (two lamps)	Indicates the direction of Clock Slip each time the circular display moves off the INDEX position.
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NO SIGNAL	Lights dimly when one input signal is missing, brighter when both are missing.
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BATTERY	Lights when battery is being charged. Flashes if battery charge is low.
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FRAME SLIPS	Counts the number of times the clock slip indicator arrives at the index position after the display has made a full cycle.
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TECHNICAL DATA (continued)

POWER REQUIREMENTS

Battery pack	9.6 V 600 mAmp-hr NiCad rechargeable
Battery charge life	10 hours (nominal) on full charge at 20°C
Battery charger	External plug-in unit 14 hours full charge

PHYSICAL CHARACTERISTICS

Case dimensions	
Length	7.25 in (18 cm)
Width	3.9 in (10 cm)
Depth	1.8 in (5 cm)
Weight	22 oz (625 gm)
Temperature (operating)	32° to 122°F (0 to 50° C)
