

1 x 2 OPTICAL SWITCH SYSTEM

Optical switching plays a major role in modern fiber-optic telecommunication systems. They are essential in optical add/drop, cross connect, and ring protection applications. The Brimrose switch is patent pending intelligent and all optical. Presently our 2 x 1 switch has a 200 nsec switching speed. The 2x1 or 1x2 optical switching system consists of the fiber-optic switch device and corresponding driver packaged in a rack-mountable enclosure. The switching is done by an external TTL signal.



Preliminary Specifications for Model No.: OS-2-1-C-55/FFE-55-B2-F1-X/RM

Parameters	
Wavelength	C band
Fiber Type	9/125 μm Single Mode
Fiber jacket type	0.9 mm OD
Number of input ports	1
Number of output ports	2
Connector types	FC/APC
Fiber length	1 meter
Switch time	~ 200 ns
Total insertion loss	$< 2.5-3.0$ dB
Delay Time	~ 1 μs
Case size	90x45x14 mm

One optical channel will be up-shifted by 55 MHz and the other will be downshifted by -55 MHz.



RF DRIVER

Specification

Frequency	55 MHz
Frequency Control	Quartz crystal referenced phase locked loop.
Frequency Accuracy	0.015%
Frequency Stability	< 100 Hz
Harmonic Content	≤ - 10 dBc (Max)
Output Power	1 W nominal on both RF Out 1 and RF Out 2.
Modulation	B2 TTL; DC-8 MHz:
Modulation Input	0-1 V; 50 Ω
Operating Power	117 VAC +/-10% 50-60Hz, (220 VAC ±25% optional) 55W max.
Enclosure	The unit will be packaged in a 7.5 in wide by 3.5 in high by 8.75 in deep instrument case. The rear panel heat sink increases depth to 10.5 inch max. Size is exclusive of connectors.
Environmental	Nominal Laboratory conditions: Max ambient temperature - +35 deg C; the unit is not sealed against moisture or condensing humidity. A detachable AC line cord is provided.
Option X	two RF outputs with a single "TTL in" to switch between.