



GENERAL SPECIFICATIONS

IF Signal Inputs	Two single ended inputs at 70 MHz with a nominal 2 Volt peak to peak level. Input Impedance 50 Ohms.
IF Signal Input Connectors	SMA
IF Range	70 MHz \pm 5 MHz
Diversity Combiner Signal to Noise Improvement	Up to 2.5 dB depending on IF signal quality
AGC Inputs	Two Single Ended AGC Inputs from compatible Receivers are used to determine IF Signal Quality and the optimum combining ratio
AGC Connectors	A BNC connector is provided for each of the two AGC Inputs
AGC Input Impedance	1 K Ohm
AGC Input Voltage Range	0 to +5 Volts where 0V is minimum signal strength and 5V is maximum signal strength
Combined Baseband Signal Output	Single ended demodulated analogue baseband output signal at a nominal 1 Volt peak to peak level Output Signal is provided on a BNC Connector
Combining Logic	<p>If the difference between the AGC inputs is more than 50% then the Combiner will use the larger signal and exclude the smaller signal.</p> <p>If both AGC Signals are within 50% of each other the unit will Combine the IF Signals.</p> <p>Channel A is always used as the reference for phase</p>
Status Indicators on the Unit	<p>The operational Status of the Diversity Combiner is provided through a tri-colour Source LED</p> <p>Red indicates that the Combiner is using Channel A Only</p> <p>Green indicates that the Combiner is using Channel B Only</p> <p>Orange indicates that the Combiner is using both Channels simultaneously</p>

System Interface Specification

Host PC Interface Type	Single USB Bus connection to Host PC
Power Requirements	Within USB Bus Hub limits
Monitoring Software	The APK8775 is shipped with Combiner Status Monitoring Software for Windows operating system which indicates the two AGC input levels

Mechanical Specification

Overall Size	105 mm long by 55 mm wide and 35 mm high
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Operational Environmental Specification

Temperature	-10 ^o Centigrade to +70 ^o Centigrade
Humidity	0% to 90% non-condensing

Non-operating

Temperature	-25 ^o Centigrade to +90 ^o Centigrade
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