

Aeroflex / Weinschel Subsystems

Attenuation Matrices Design Concept

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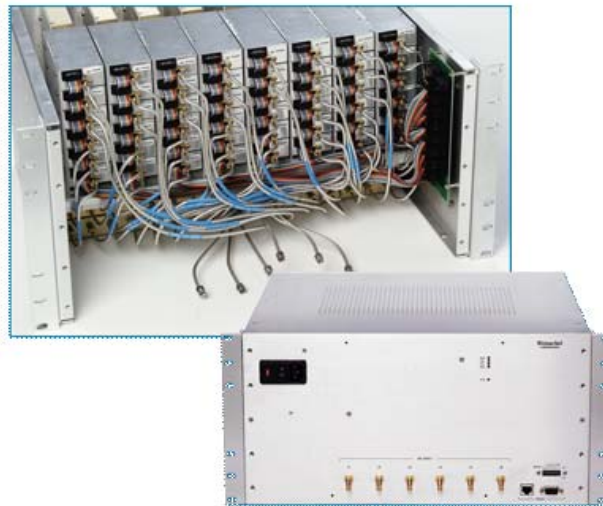
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1 Introduction

Aeroflex / Weinschel designs and manufactures multiple versions of Attenuation Matrices. These units have typically been built in configurations that include 2x6, 6x6, 4x4, 4x8 and 8x8 configurations., For the typical UMTS and cellular bands of interest the units can operate over 800 – 3 GHz frequency range. However multiple units have been built for other applications and span the frequency range of DC to 18 GHz in multiple sub-band configurations.

The attenuation units available include all available Aeroflex / Weinschel programmable attenuators and can be controlled using industry standard interfaces such as IEEE-488, RS-232 and Ethernet (10 BaseT).

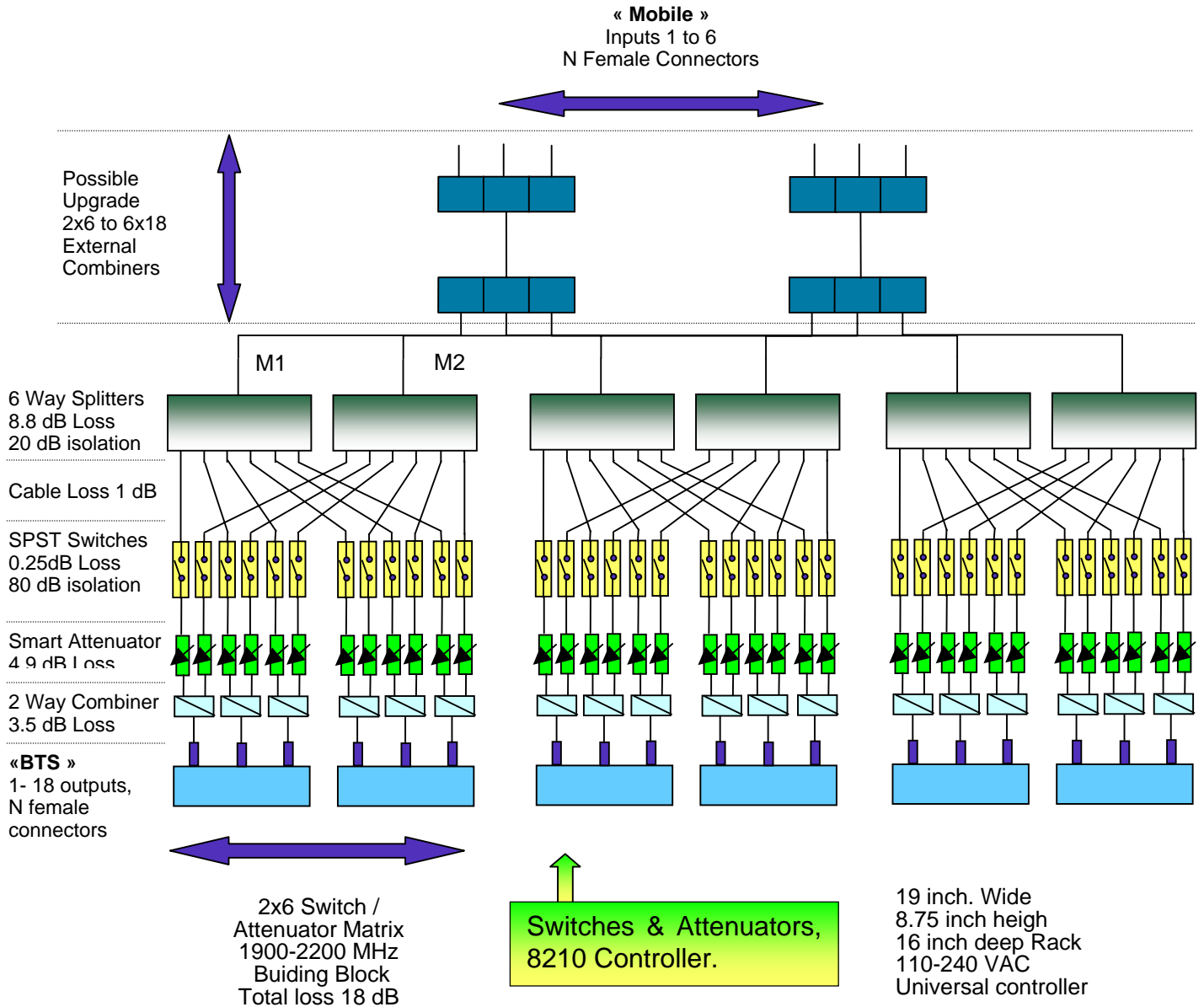


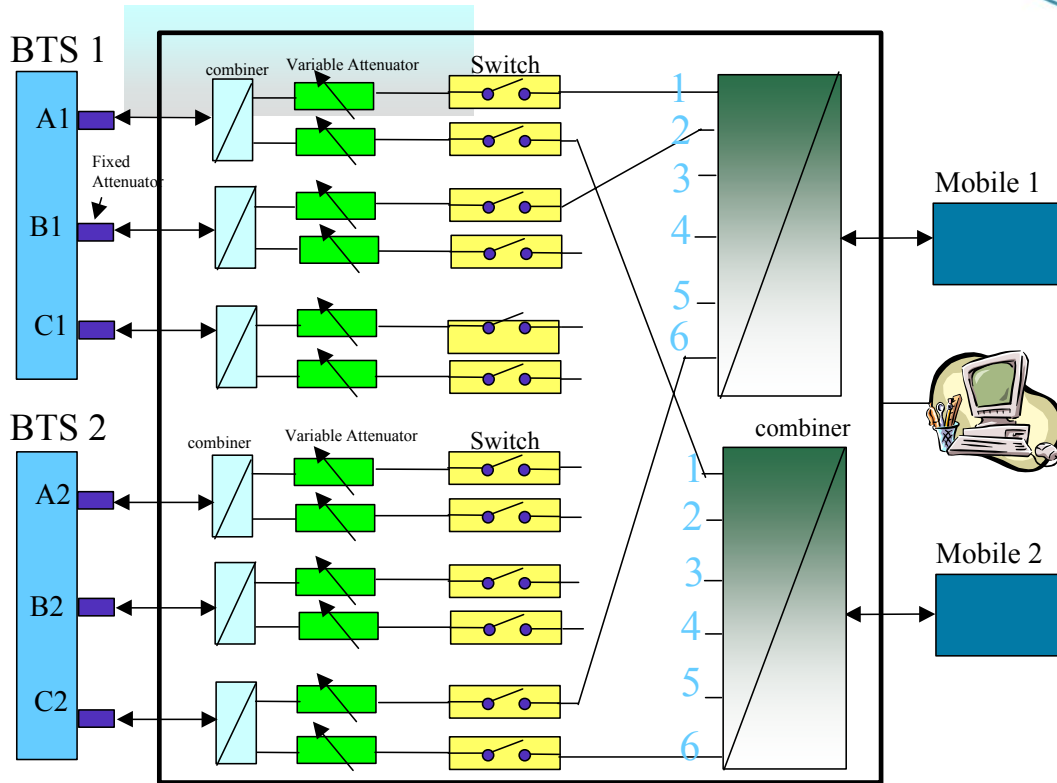
2. TYPICAL SPECIFICATIONS

Typical specifications for an 8 x 8 UMTS configuration are:

Frequency Range:	800 MHz to 3 GHz
Attenuation Range:	127 dB / 1 dB steps
Impedance:	50 Ω nominal
Insertion Loss:	25 dB @ 800 MHz (Target) 30 dB @ 3 GHz (Target)
SWR:	1.50 maximum
RF Power Input:	0 dBm average +30 dBm without damage
Isolation Input to Input:	40 dB minimum
Isolation Output to Output:	35 dB minimum

Typical configuration of a 2x6 matrix





3. Quality Assurance

Aeroflex / Weinschel will implement its standard quality assurance program for development, fabrication, assembly, alignment and test of the deliverable items. This program supports compliance with the inspection requirements of ISO 9001.

4. Warranty

Aeroflex / Weinschel supplies a one year warranty on all proprietary equipment. All units under warranty that need repair will be repaired at the Frederick Maryland facility.

5. AVAILABILITY

This paper describes both a Aeroflex / Weinschel capability and a specific conceptual design for a Attenuator Matrices, but not an existing product. Product availability and delivery will be dependant upon specific customer requirements and quantities required.

Aeroflex / Weinschel has earned a reputation in the industry as a responsive supplier of both electronic components and subsystems. We invite your specific inquiries, and will work with your designers and requirements to formulate a subsystem approach that is both compliant with your technical needs, and timely with regard to your development schedule.