



THE MM-1 (MATHEMATICS-1) MODULE HOLDS A BROAD VARIETY OF FORMULAS TO BE USED FOR AUDIO OR CV SIGNAL PROCESSING. IT CAN BE USED TO DESIGN CUSTOM OSCILLATORS OR CHANGE HOW CV SIGNALS ARE HANDLED.

INPUT 1 & 2 - THE JACKS ON TOP ARE THE INPUT JACKS FOR THE FORMULA. LEFT IS INPUT 1 AND RIGHT INPUT TWO.

FORMULA-SWITCH - BENEATH THE INPUT JACKS IS THE FORMULA-SWITCH LOCATED. THE SWITCH LETS YOU SELECT THE FOLLOWING BROAD RANGE OF FORMULA'S AND PROCESSORS:

OUTPUT JACK - IS THE RESULT OF THE CALCULATION.

ADD: ADDS INPUT 2 TO INPUT 1.

SUB: SUBTRACTS INPUT 2 FROM INPUT 1.

MUL: MULTIPLIES INPUT 1 BY INPUT 2.

DIV: DIVIDES INPUT 1 BY INPUT 2.

RNG: A RING MODULATOR. ONE INPUT CONTROLS THE LEVEL OF THE OTHER. THE TWO INPUTS ARE MULTIPLIED, THEN NORMALISED E.G.  $1*2/10$

RCT: A RECTIFIER. COMPARES THE TWO INPUT LEVELS. IF INPUT 1 IS GREATER, OUTPUT IS HIGH (5 VOLTS), ELSE LOW (-5 VOLTS).

CMP: A COMPARATOR. FLIPS NEGATIVE VOLTAGES TO POSITIVE, LEAVES POSITIVE VOLTAGES UNCHANGED

A>B: IF INPUT 1 IS GREATER THAN INPUT 2, INPUT 1 IS FOLLOWED, ELSE INPUT 2.

LOG: INPUT 1 IS PROCESSED LOGARITHMICLY - INPUT 2 IS NOT USED

EXP: INPUT 2 IS PROCESSED EXPONENTIALLY - INPUT 2 IS NOT USED

QZ1: QUANTIZER 1, INPUT 1 IS QUANTIZED AT 1 VOLT - INPUT 2 IS NOT USED

QZ2: QUANTIZER 2, INPUT 1 IS QUANTIZED AT 0,5 VOLT - INPUT 2 IS NOT USED

MOD: THE REMAINDER OF DIVIDING INPUT 1 BY INPUT 2.

VALUE BUTTON\* BY PRESSING THE VALUE BUTTON, THE RESULT OF THE FORMULA IS DISPLAYED UNDER THE OUTPUT JACK.