

DESCRIPTION

The Stereocoder plate PN417 allows the multiplexer codification of the stereo signal, the pre-emphasis and the needed filtering.

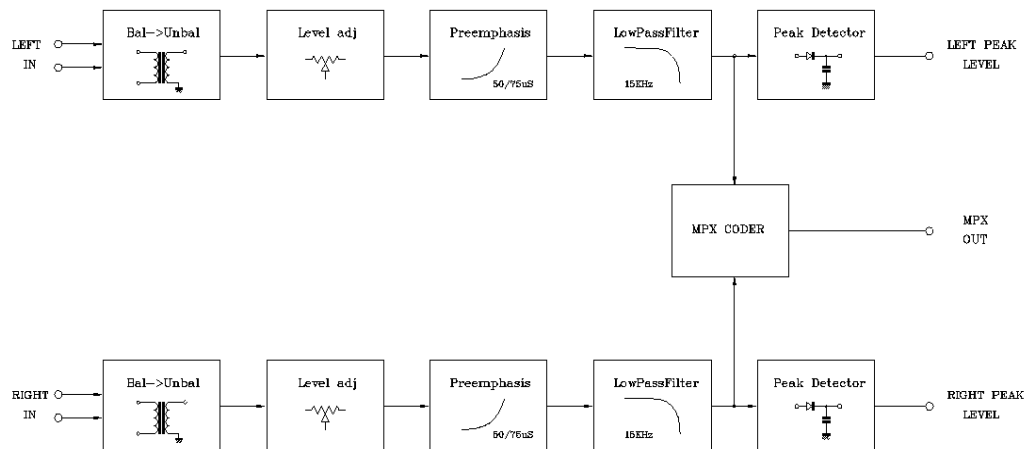
In particular, with reference to the block diagram:

- The block "Bal-Unbal" does the conversion from balanced to unbalanced, obviously with active circuit.
- The block "Level adj" allows the adjustment of the input level by means of a potentiometer placed on the rear panel of the apparatus.
- The block "Preemphasis" activates (or deactivates) the 50 or 75 μ s pre-emphasis, which may be selected on the printed circuit.
- The block "Low Pass Editor" does the filtering beyond 15kHz, according to the rules in force, by means of two cascaded stages made up with elliptical filter.
- The block "Peak Detector" reveals the peak of the signal, before being codified MPZ.
- The block "MPC Coder" is the heart of the Multiplexer stereo codification. It mixes the left and right signal to create the MPX signal which will be modulated by the FM exciter.

SPECIFICATIONS

Input Audio Level	2Vpp
Input Impedance	600 Ω Balanced 30k Ω Unbalanced
Bandwith	20Kz - 15kHz
MPX Output Imp.	100 Ω (Unbal) Free of DC
MPX Output Level	5.6Vpp
Pilot Output Level	560mVpp
Output Load	> 10k Ω
Crosstalk L/R	> 59dB @ 40Hz > 70dB @ 1kHz > 53dB @ 15kHz
Pilot Frequency Accuracy	< 1Hz
Preenphasis	50 μ s / 70 μ s / FLAT
Weighted S/N ratio (400Hz)	> 80dB
Unweighted S/N ratio (400Hz)	> 81dB
THD	0.03%
IMD (7&8kHz)	0.013% (D2) 0.110% (D3)
Power Supply	15Vdc

STEREOCODER Block Diagram



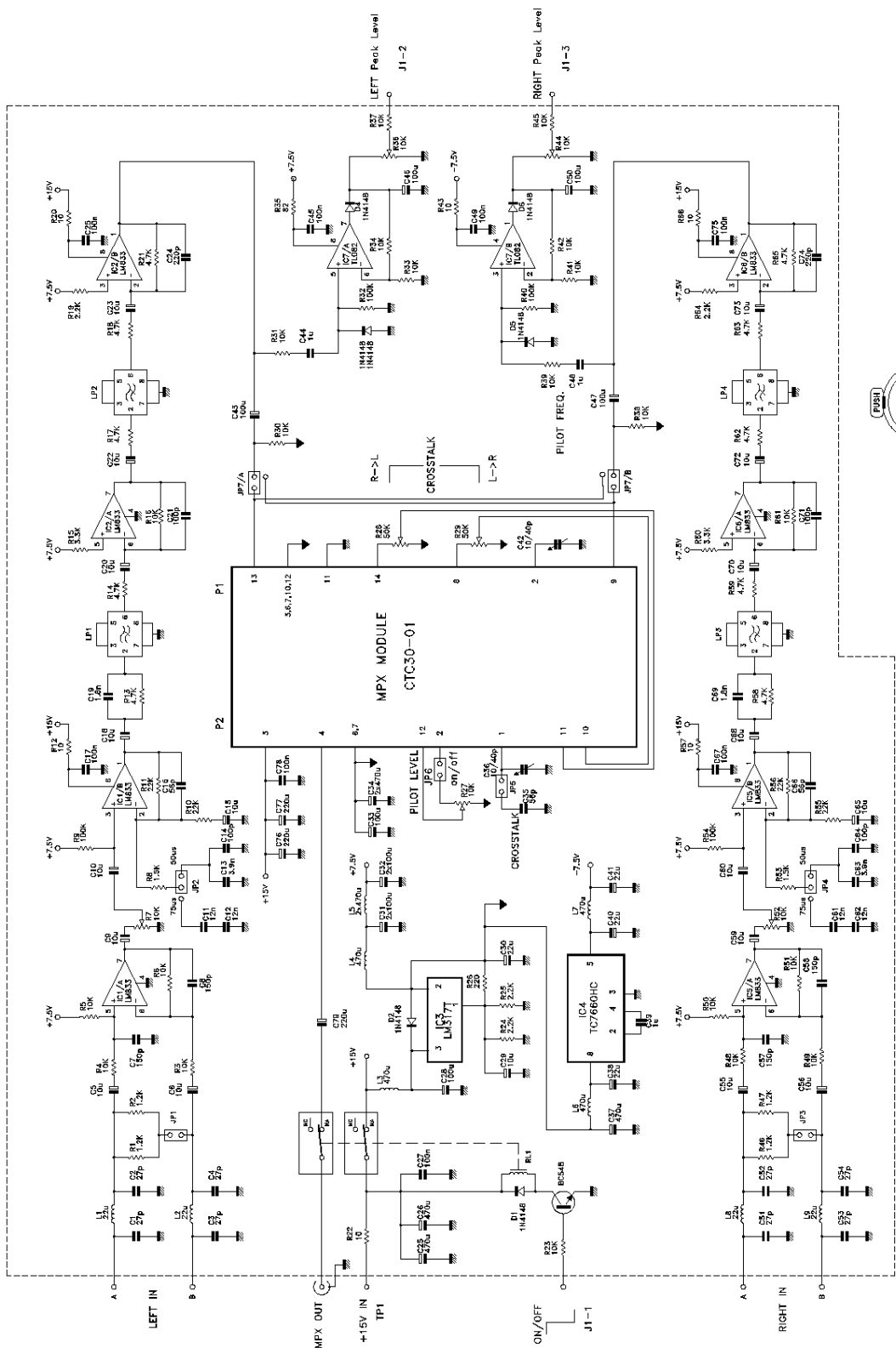
For the operations described in this paragraph, refer to th diagram SP417 at the following page;

SETTINGS

- JP2/JP4: Allows to select the preemphasis between 50 and 75µs or to completely exclude it removing the jumper;
- JP1/JP3: Allows to select the input impedance between 600 and 30kΩ;
- JP5: Insert an auxiliary condenser needed to calibrate the crosstalk with the exciter connected;
- JP6: Disables the carrier of the pilot;
- JP7: Allows to exchange the left and right channels with each other.

ADJUSTMENTS

- R29: Allows to adjust the crosstalk L->R;
- R28: Allows to adjust the crosstalk R->L;
- C36: Allows to adjust the crosstalk;
- C42: Allows to adjust the pilot frequency;
- R27: Allows to adjust the pilot level (560mVpp);
- R44/R36: Allows to adjust the peak level of the left/ right channel;
- R52/R7: Allows to adjust the input signal for the left/ right channel;
- LP4/LP3: Allows to adjust the passing band for the right channel;
- LP2/LP1: Allows to adjust the passing band for the left channel.



ELSTRONIKA
s.r.l.

Scheda StereoCoder
StereoCoder board

DATA
31/03/98
ref.
SE417