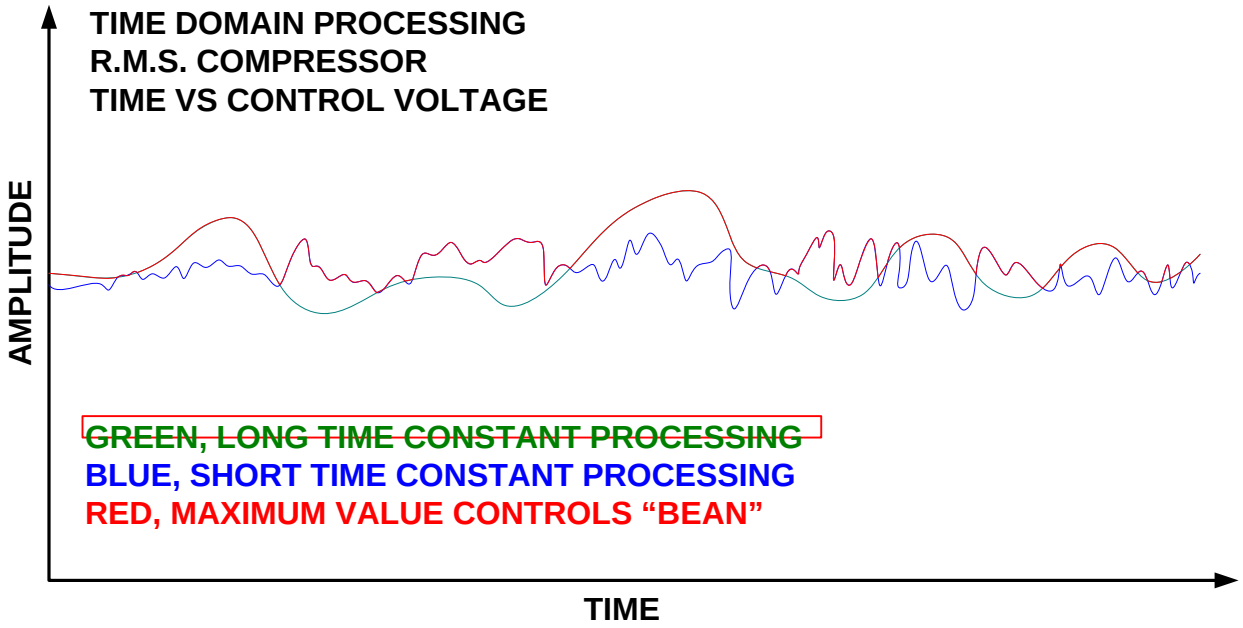


NAB was over, the Race was over, we had the luxury of time to do a design review
Time to consider a totally different type of RMS Compressor Control

The split frequency Band Processing was "old school"; pandering to the limitations of the gain control elements. We had the "Bean" LED-LDR, with almost perfect Feed Forward response

Audio Content has several characteristics, which are time dependant:
Show audio level changes…
Fast audio envelope level changes
Peaks, deal with those downstream

The Audio input is divided into two control Side Chains
One with a Time Constant of ~ 500mS
The other with a Time Constant of ~ 75mS
The Maximum Value of the two Voltages are use to control the "Bean"

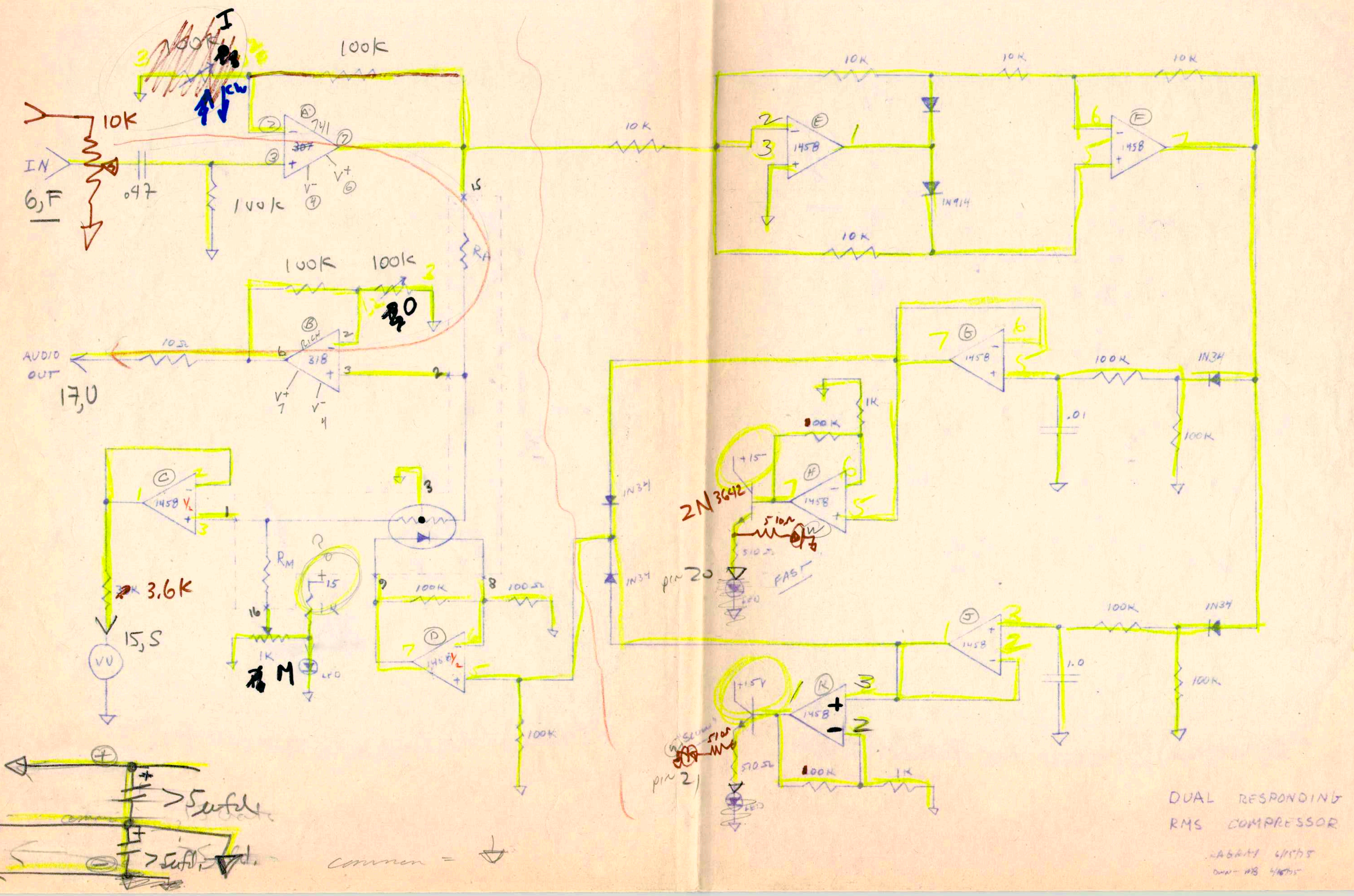
This design has many advantages:
Almost no overshoot "Pumping"
The Audio Tonal Characteristic is not affected, all frequencies are attenuated simultaneously
The Control point is ideal for tying two Boxes together, for Stereo Operation

More About Stereo Operation:
The Position of the Stereo Image depends on the Relative Audio Level
in the Left and Right Channels

If the two channels are not Processed with the same RMS Side Chain Value
The Louder Channel would be attenuated alone… moving the Stereo Image to the center
The Chaining assures Attenuation of Both Channels to accommodate the louder…
Leaving the Stereo Image intact

Time Domain RMS **Audio Compression** set the MultiLimiter apart; **our Competitive edge!!!**

First Try!!!


100K
10K
IN
6,F
.047
100K
741
307
AUDIO OUT
17,U
100K
100K
318
10Ω
1458
3.6K
15,S
VU
RM
1K
LED
100K
100Ω
100K
10K
10K
10K
10K
1458
1N914
10K
1458
100K
1N34
.01
100K
1N34
1N34
2N3642
1458
FAST
pin 20
LED
100K
1N34
1.0
100K
1458
SLOW
510Ω
pin 21
1K
1,A
2,B
3,C
common
DUAL RESPONDING
RMS COMPRESSOR

Modified Circuit, adds frequency filtering in front of Absolute Value
First Cut Time Constants, refined later