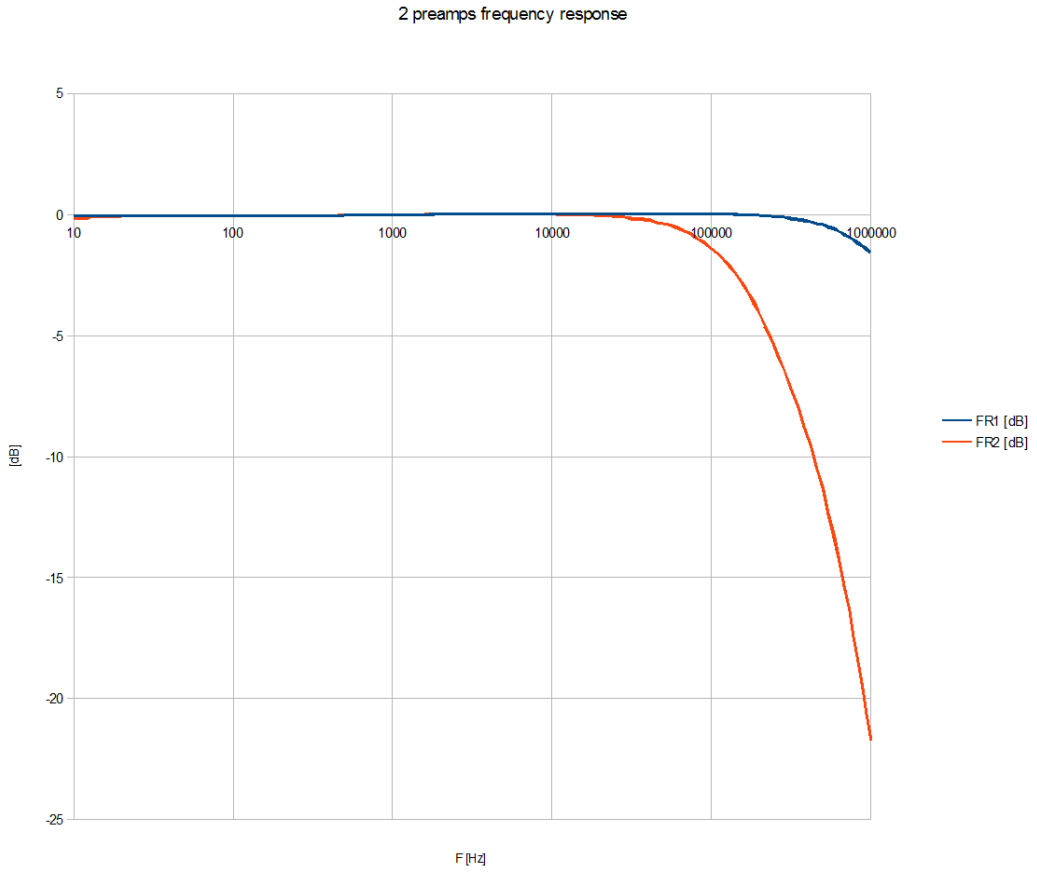
DAC – ADC path (loop)
The samples were recorded at 96kHz/24bit format. The DAC-ADC loop has maximum ADC input level of 1Vrms (1dBV). Minimum of THD(1kHz) is 0.00034% at 0.24V – below this point distortion is buried in noise. At 1V, THD(1kHz) is 0.0026%. THD is quite flat with frequency, as will be seen from the posted plot. Both input and output are only single-ended, provided with RCA connectors.

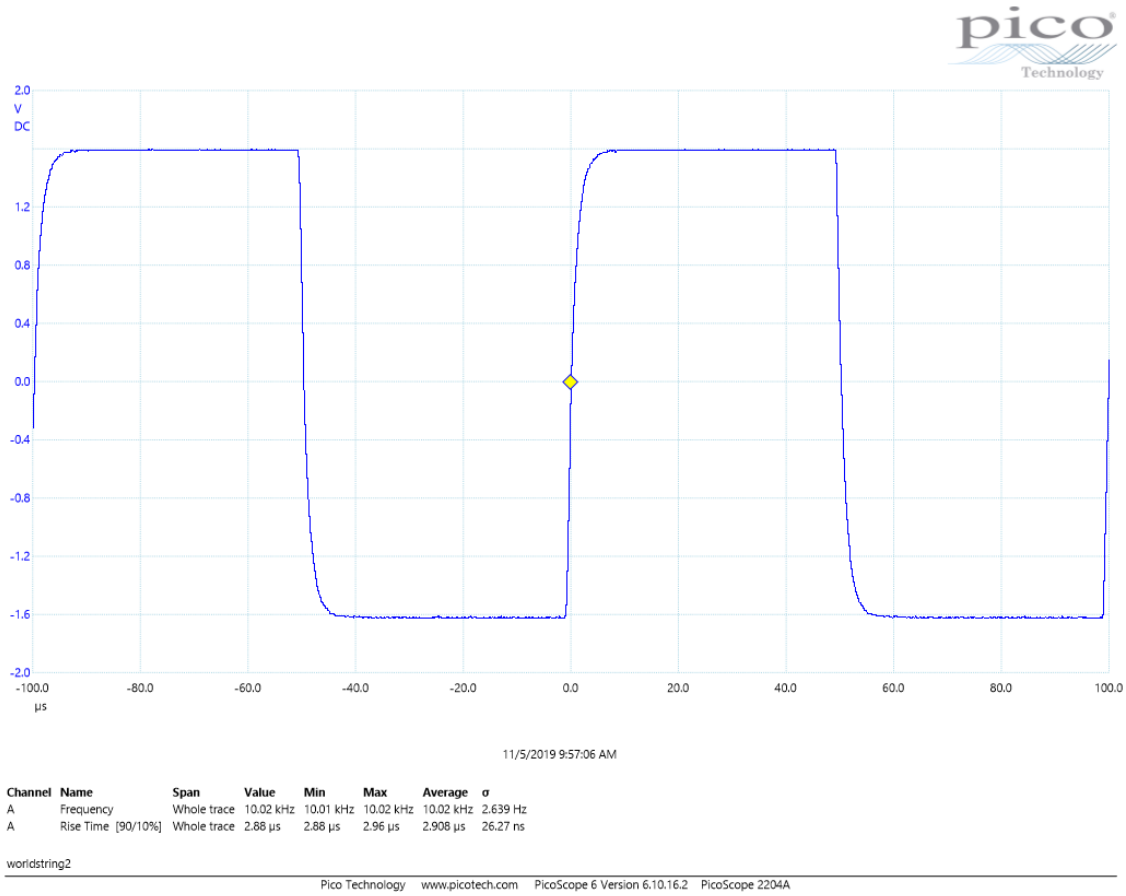
Worldstring2 preamplifier path – test report

it is a preamplifier that I call "BALPRE" and is intended as a single-ended to balanced converter. It starts with a blue Alps 2x10k pot, followed by OPA134 opamp, this followed by a DRV134 circuit with balanced floating output. OUT- was grounded and OUT+ used as a single-ended output from this preamp.

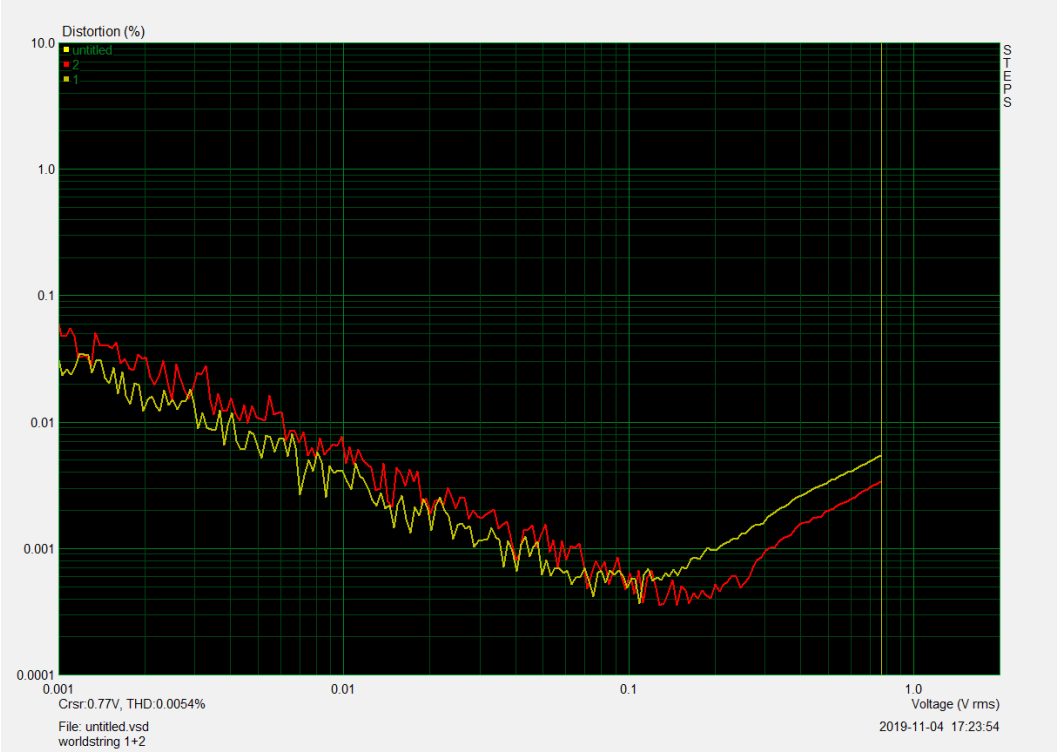
Frequency response	20Hz – 40kHz / better than 0/-0.25dB
Frequency response	10Hz – 1MHz / better than 0/-21dB
Rise time Tr(10%-90%)	2.90 us
Output noise	-100dBV(A), complete DAC-preamp-ADC loop
THD(1kHz)	0.0004% at 0.15V, complete DAC-preamp-ADC loop
THD(1kHz)	0.003% at 0.7V, complete DAC-preamp-ADC loop
THD(10kHz)	0.0035% at 0.7V, complete DAC-preamp-ADC loop
Input impedance	10 kohm
Output impedance	100 ohm



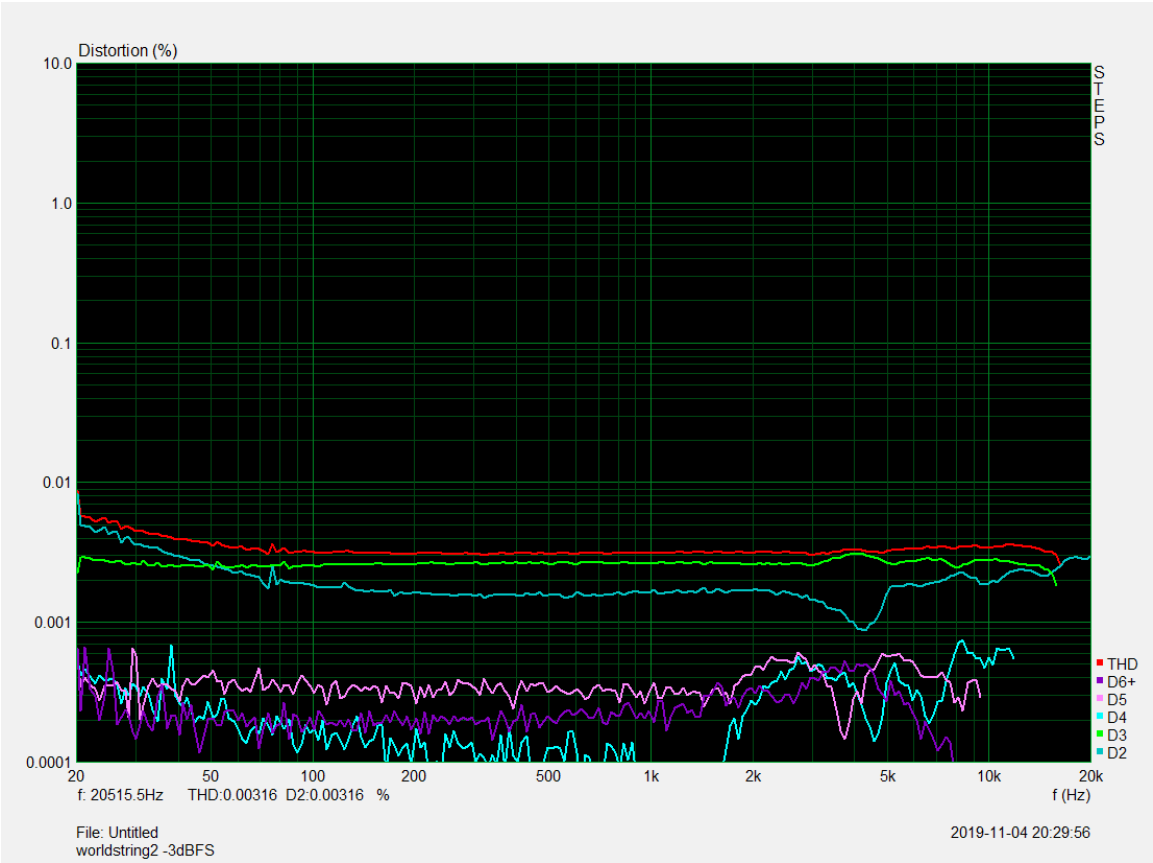
FR1...worldstring1 frequency response, FR2...worldstring2 frequency response



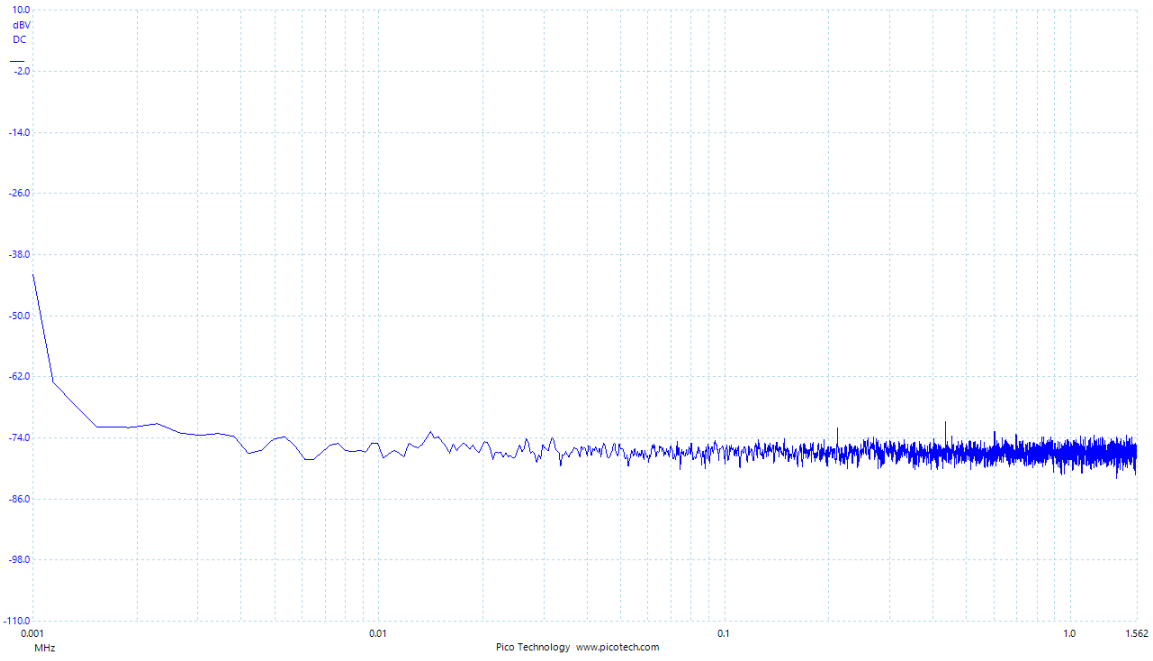
10kHz square response



Complete path, THD vs. amplitude at 1kHz. Yellow – worldstring1, Red – worldstring2



Complete path DAC-preamp-ADC, THD vs. frequency at 0.708V



Preamp2 high frequency noise

@PMA November 2019