

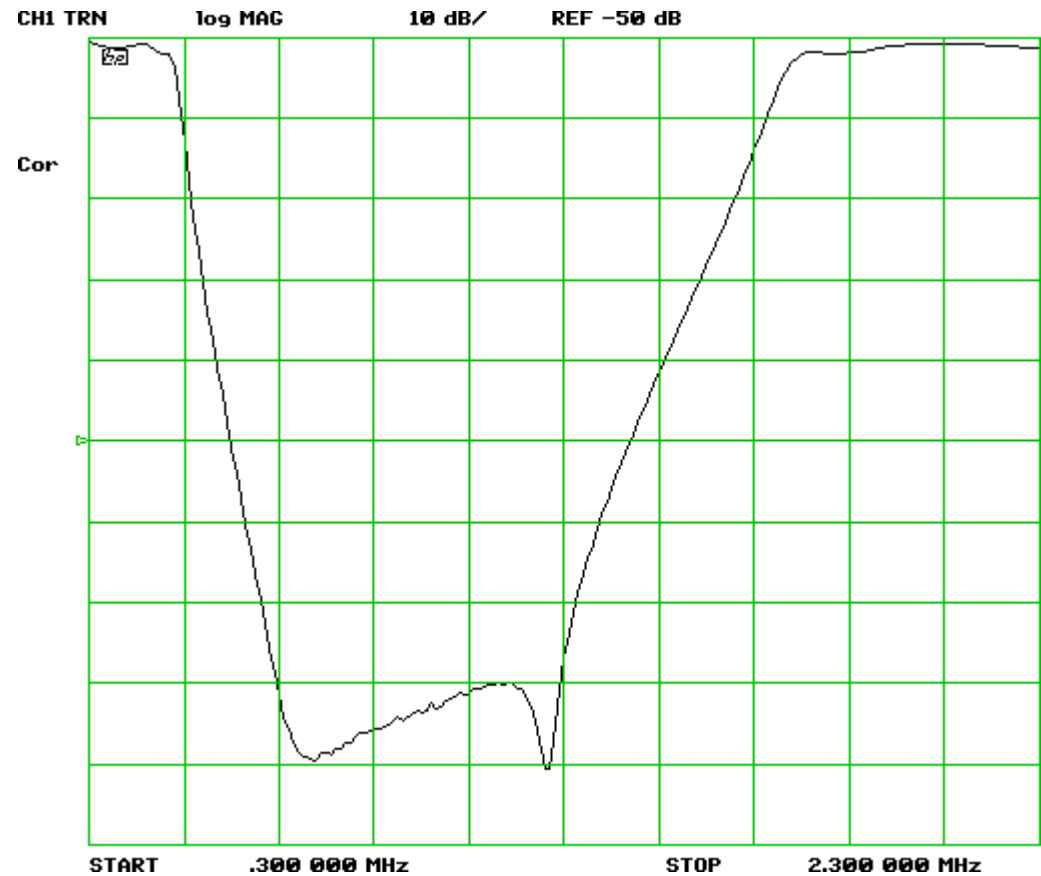
# Clifton Laboratories Z10020 Band Reject Filter Swept Response

12 July 2010

Filter built for K8ND

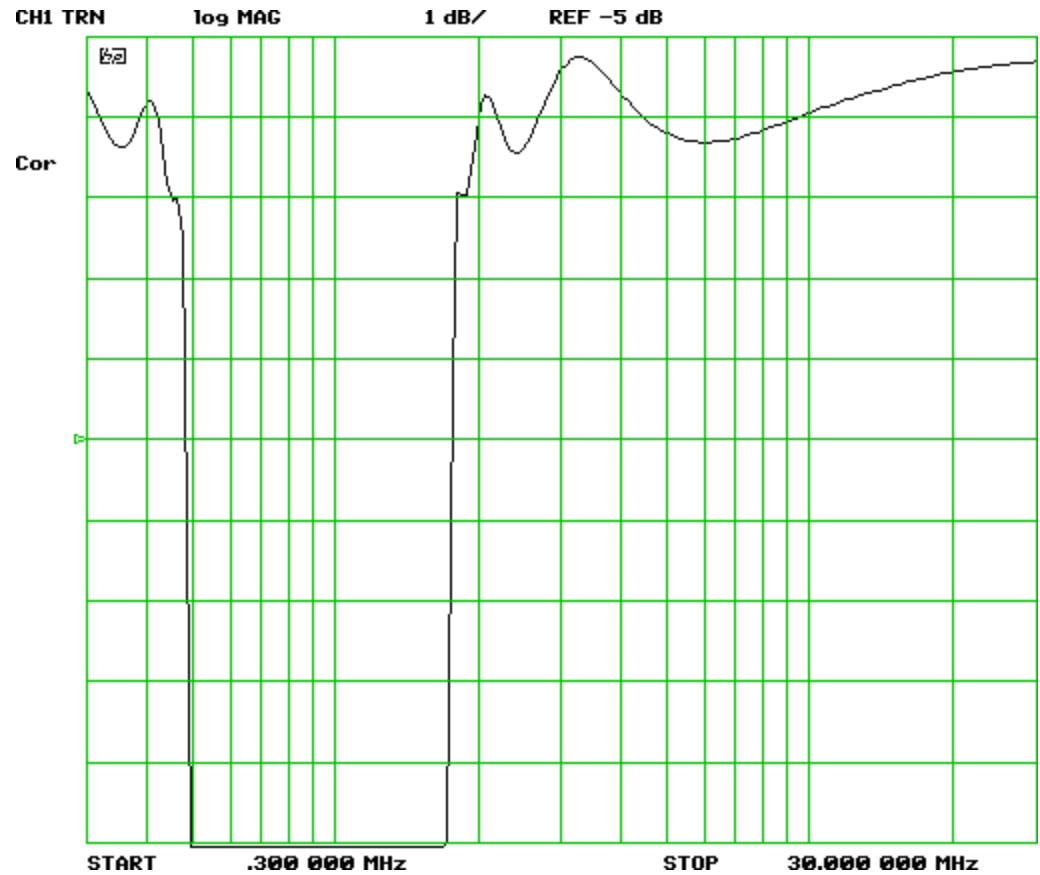
## Reject Band View

- Sweep is 300 KHz – 2300 KHz.
- Greatest attenuation is approximately 90 dB.



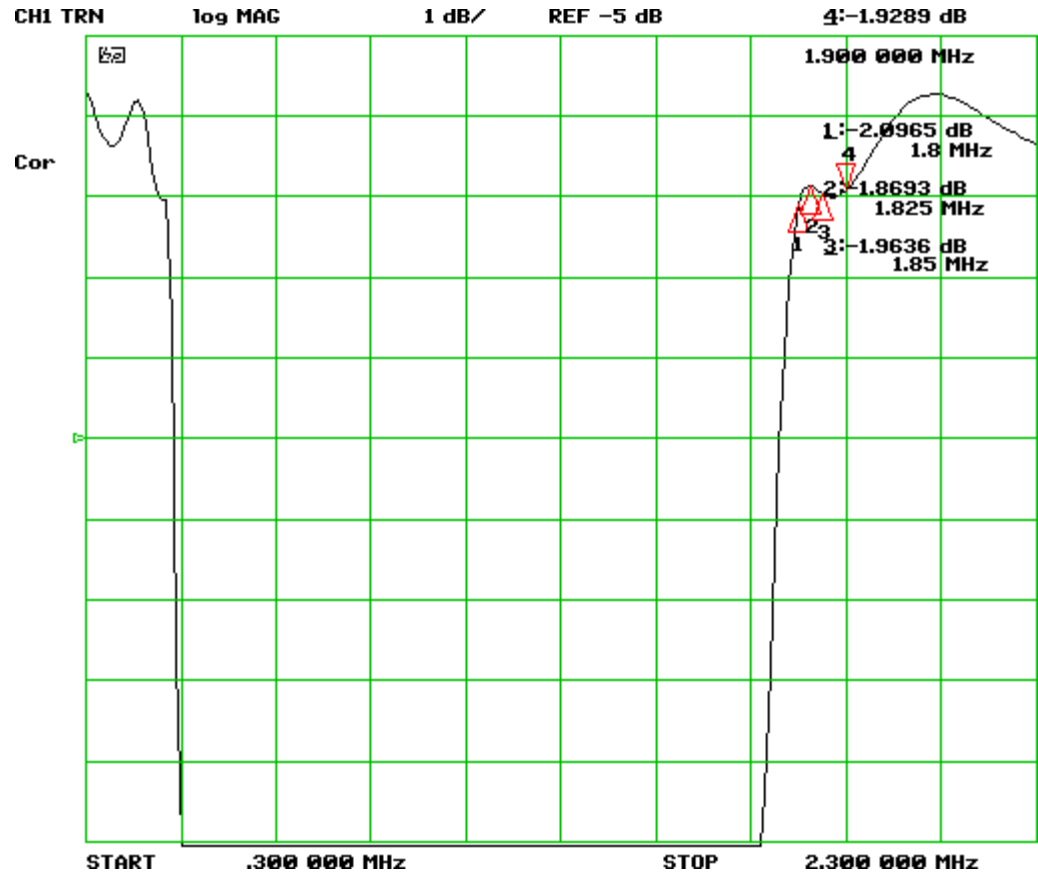
## 300 KHz – 30 MHz Expanded Pass View

- Filter is 1 dB Chebyshev design so the ripples in passband are normal.
- Maximum loss in passband is approximately 1.25 dB outside of the transition region.



# 160 Meter Band Performance

- Worst case insertion loss is at 1800 KHz, 2.09 dB.
- Above 1825 KHz, the loss is less than 2 dB.
- The filter is the 'improved 160 meter band' version.
- At 1800 KHz, the loss is about 1 dB less than the standard design Z10020 filter.



## Return Loss-300 KHz to 30 MHz

- Return loss is high in the stop band, as expected since the Z10020 is a reflection type filter.
- Return loss in the pass band is 7 dB or better, with peaks seen corresponding to the 1 dB Chevshev inflection points.

