

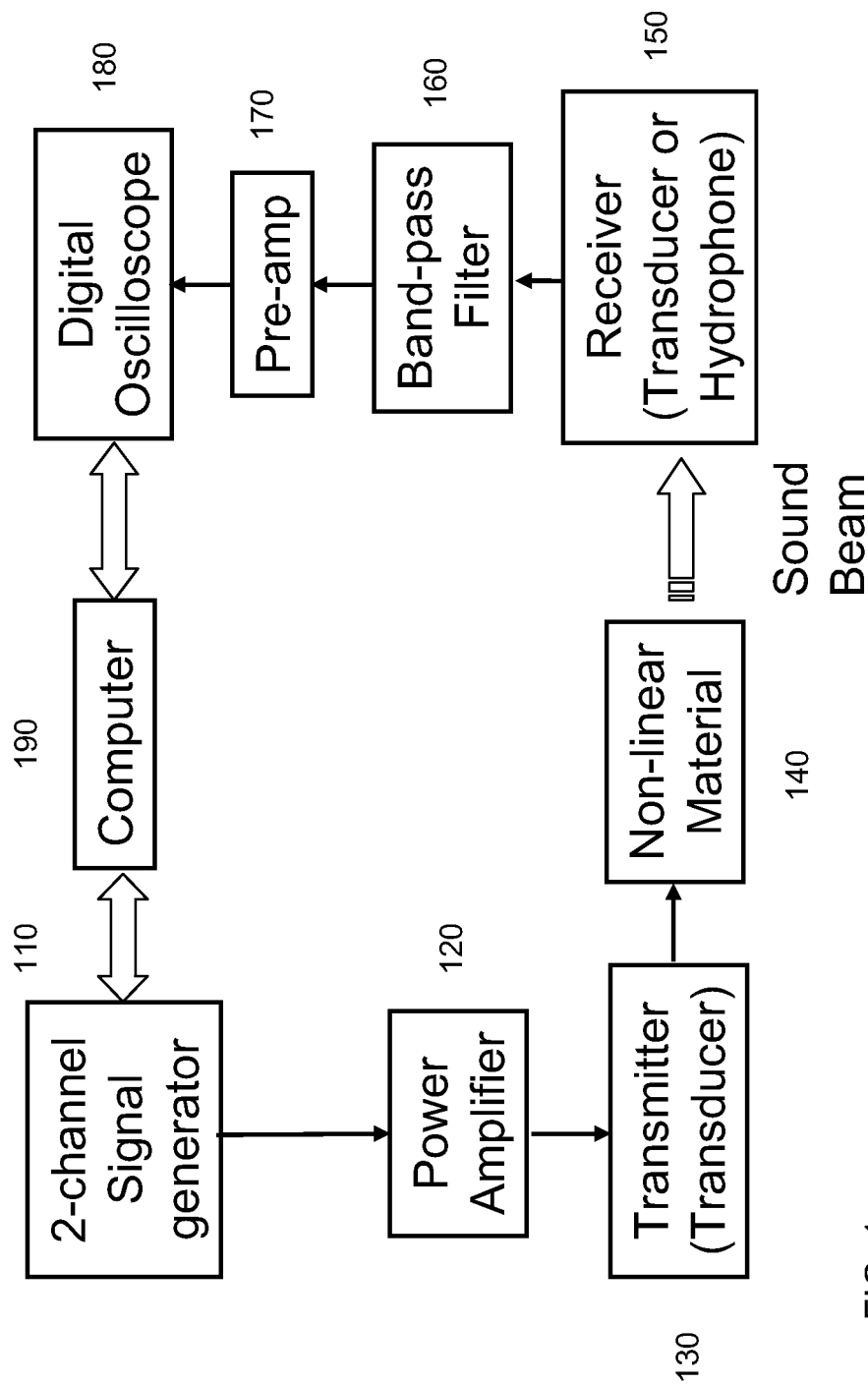


FIG. 1

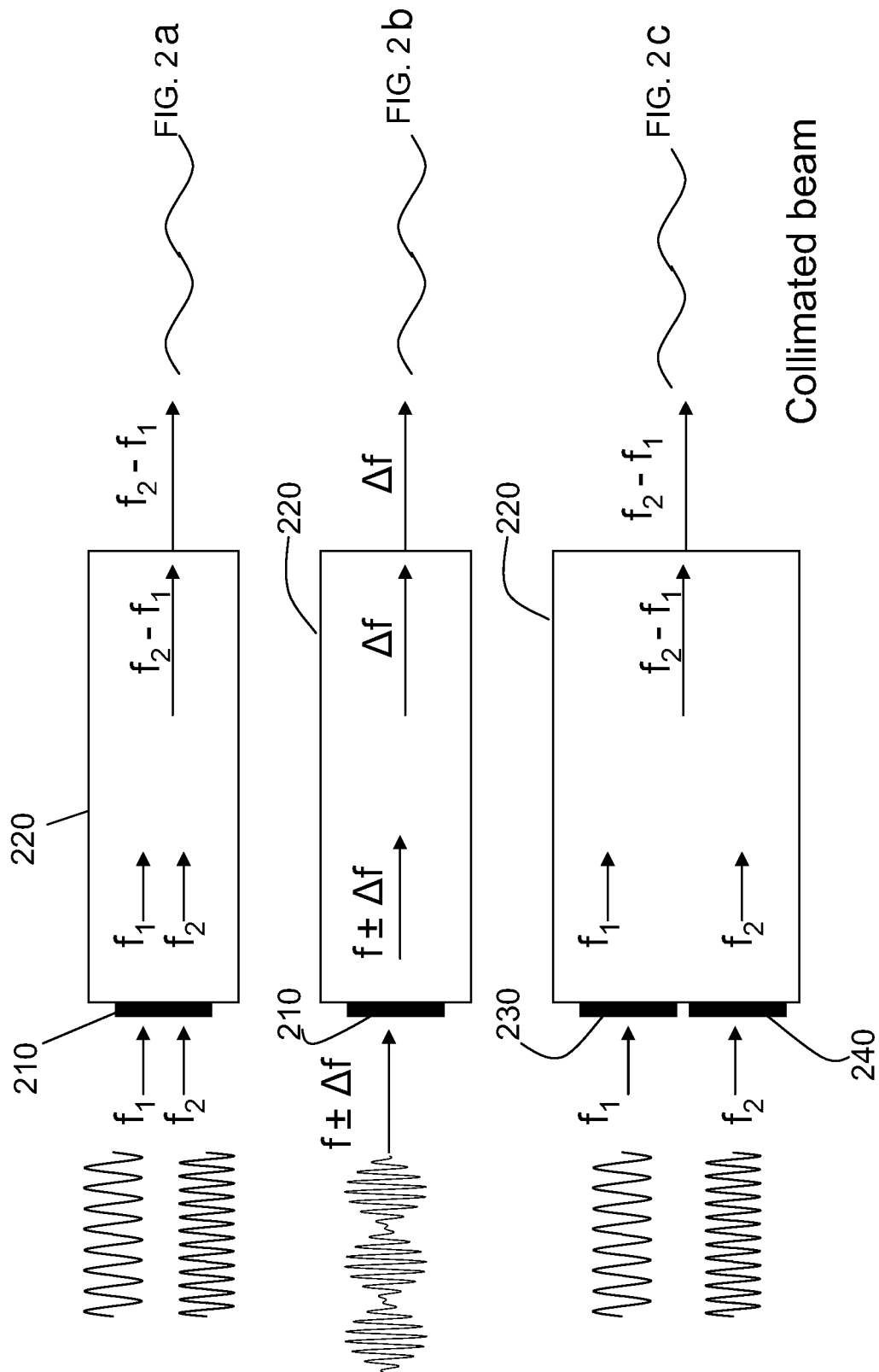
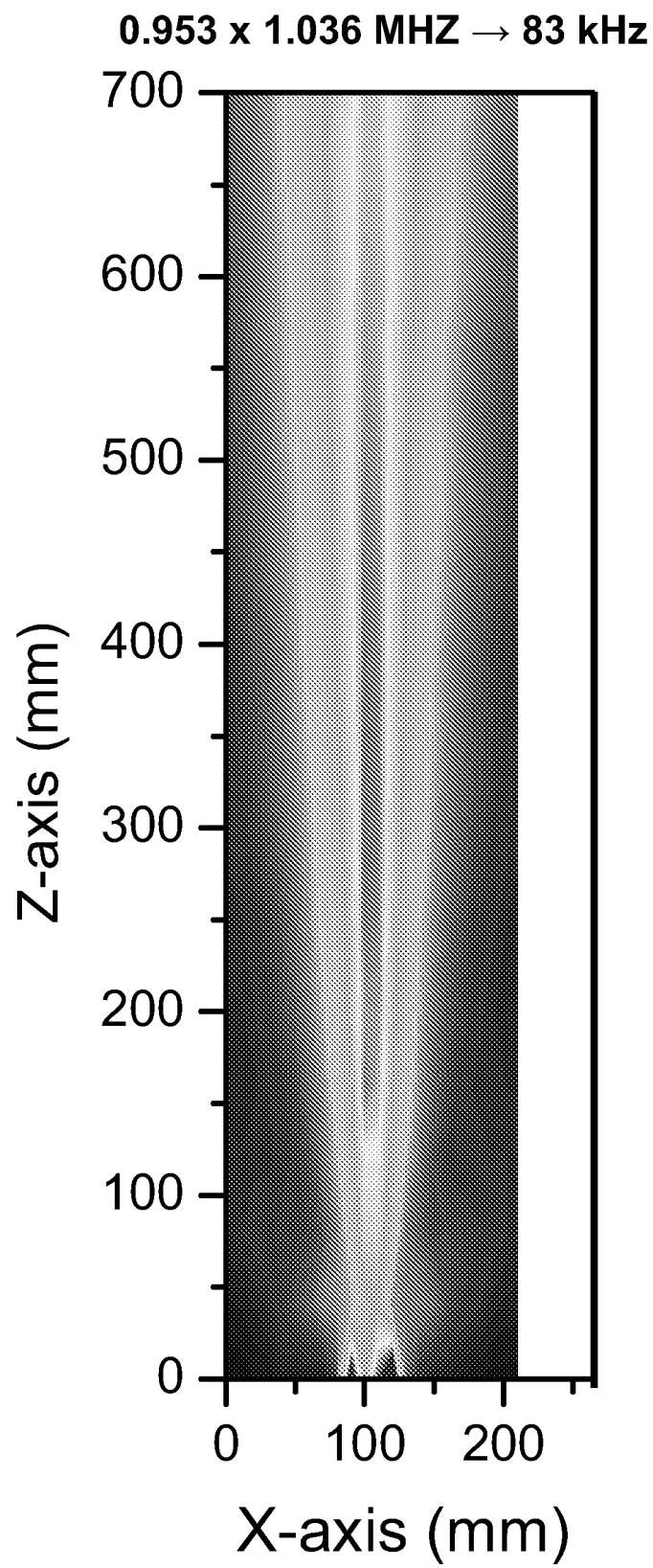
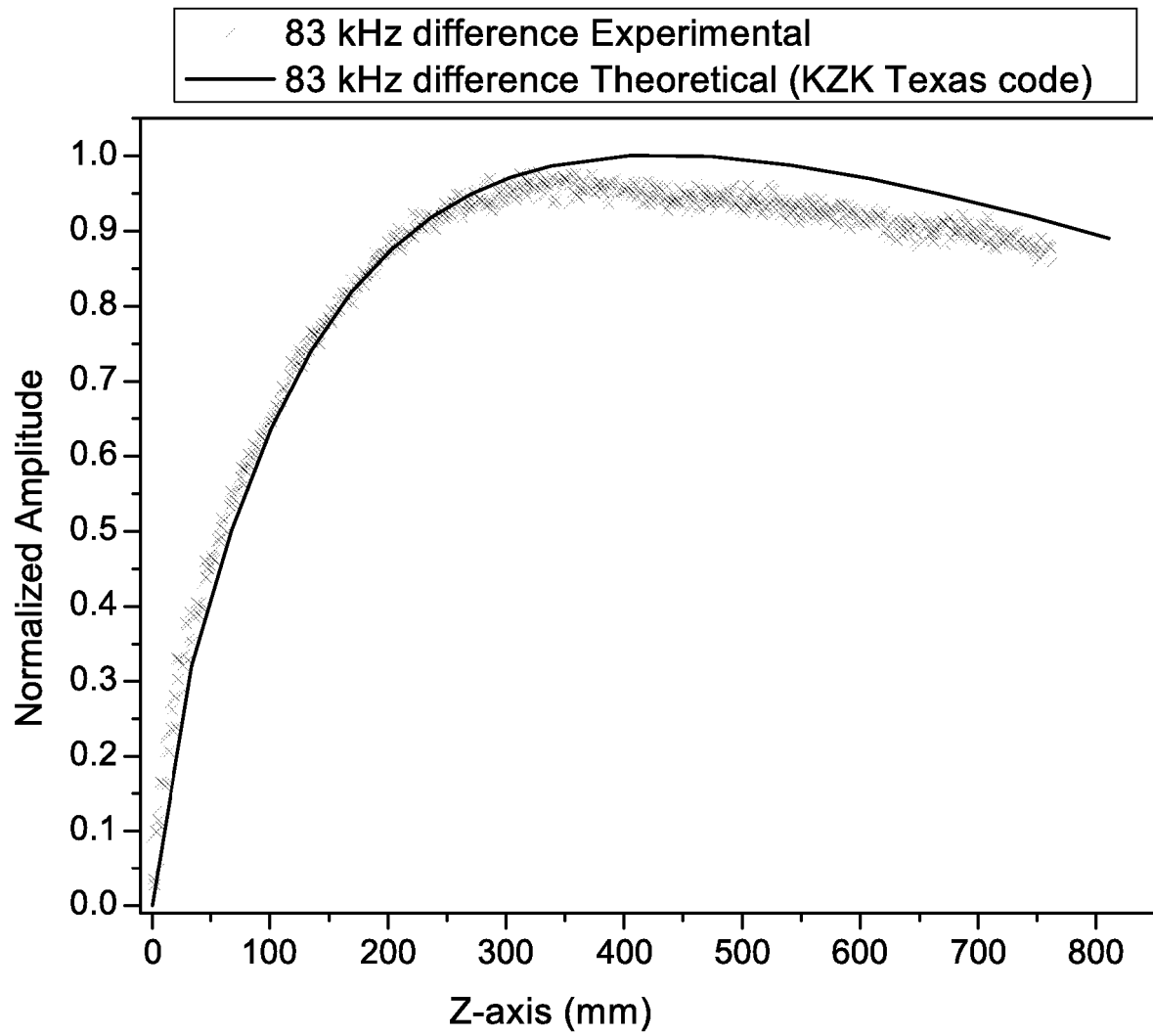


Fig. 3a



**Fig. 3B**

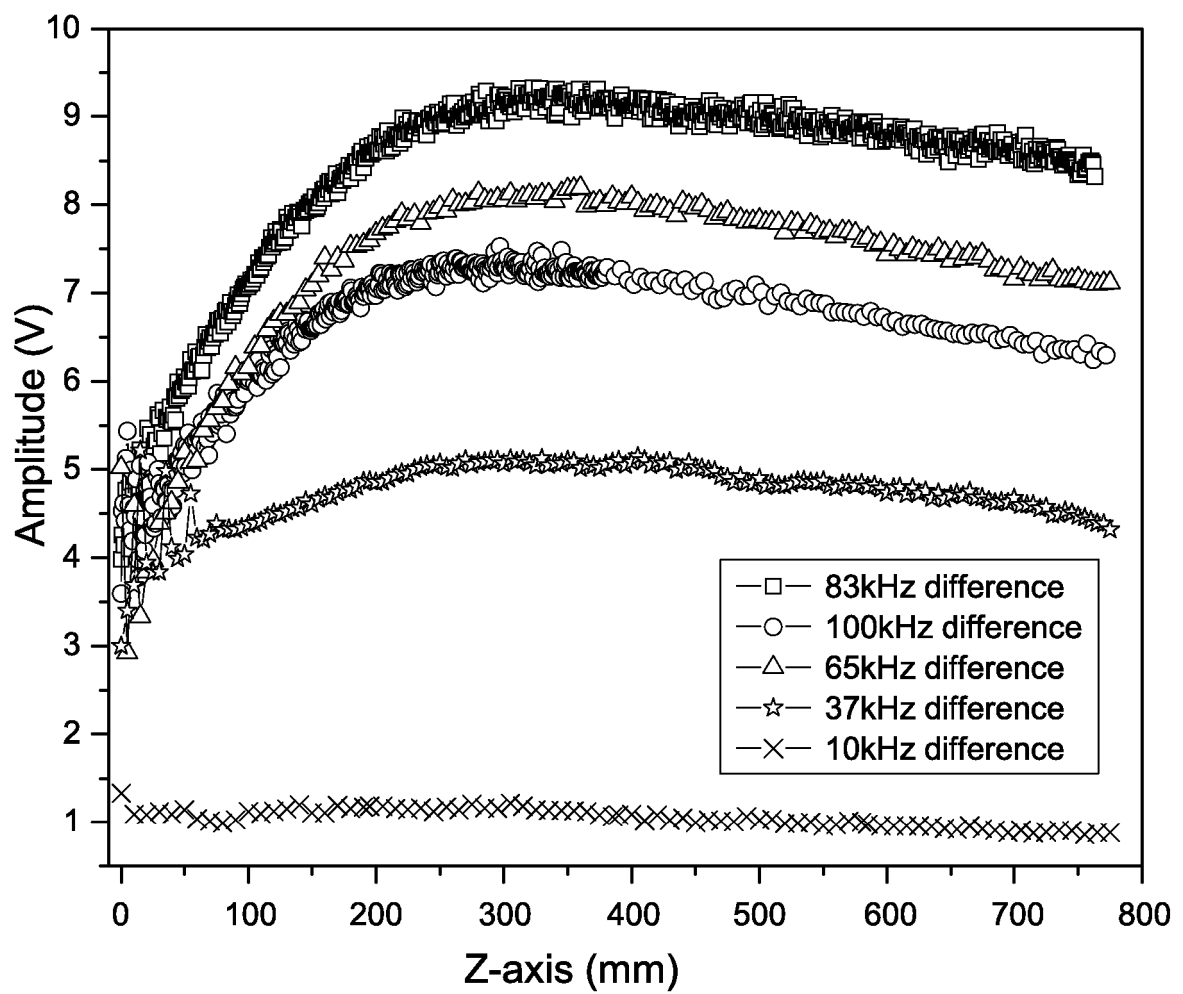


Fig. 4A

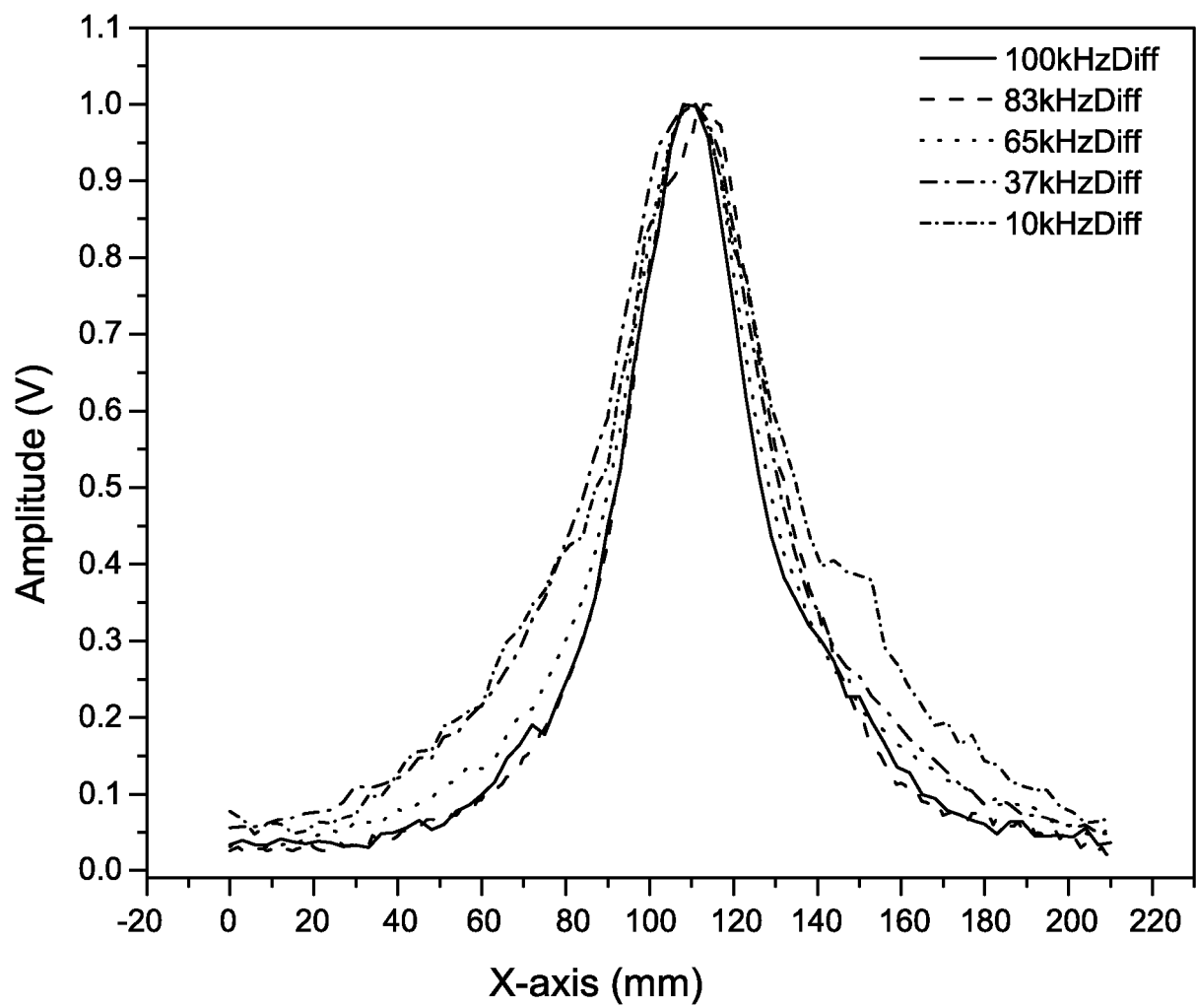
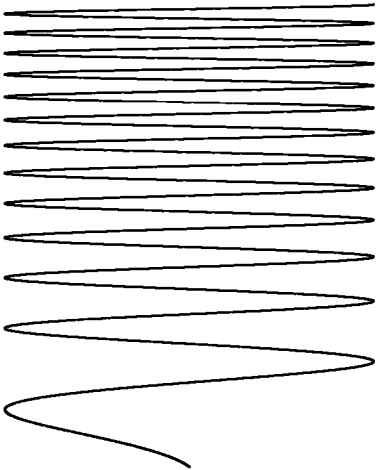
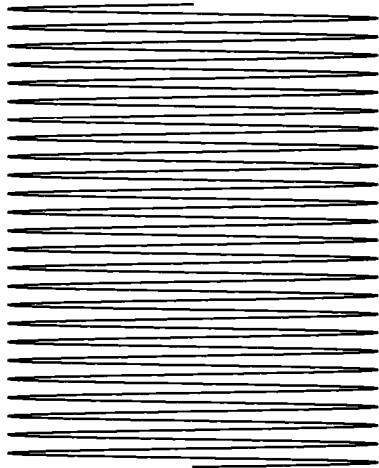


Fig. 4B

Fig. 5a

Single frequency burst



Frequency chirp (broadband)



Fig. 5b

Combined signal to transducer

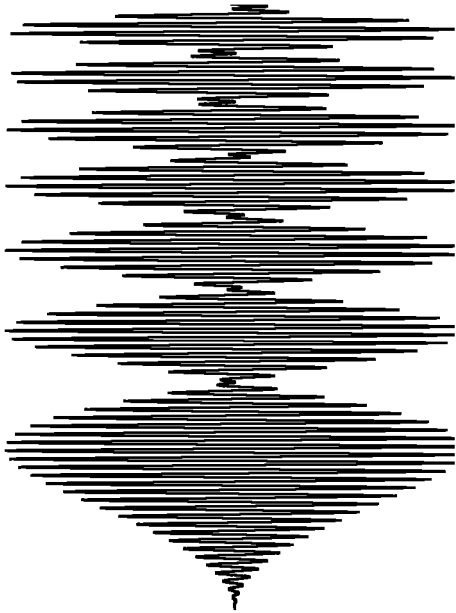


Fig. 6A

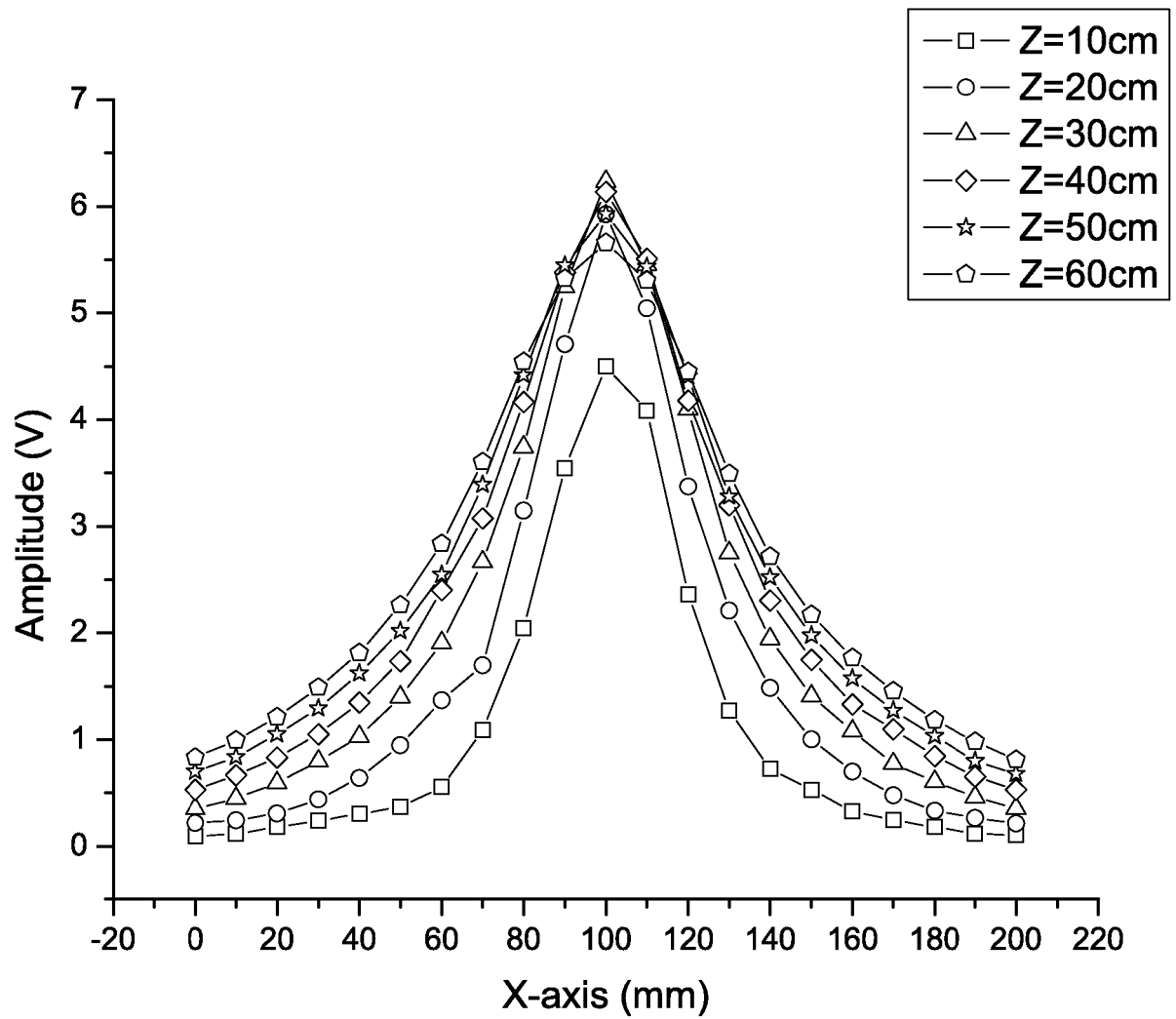
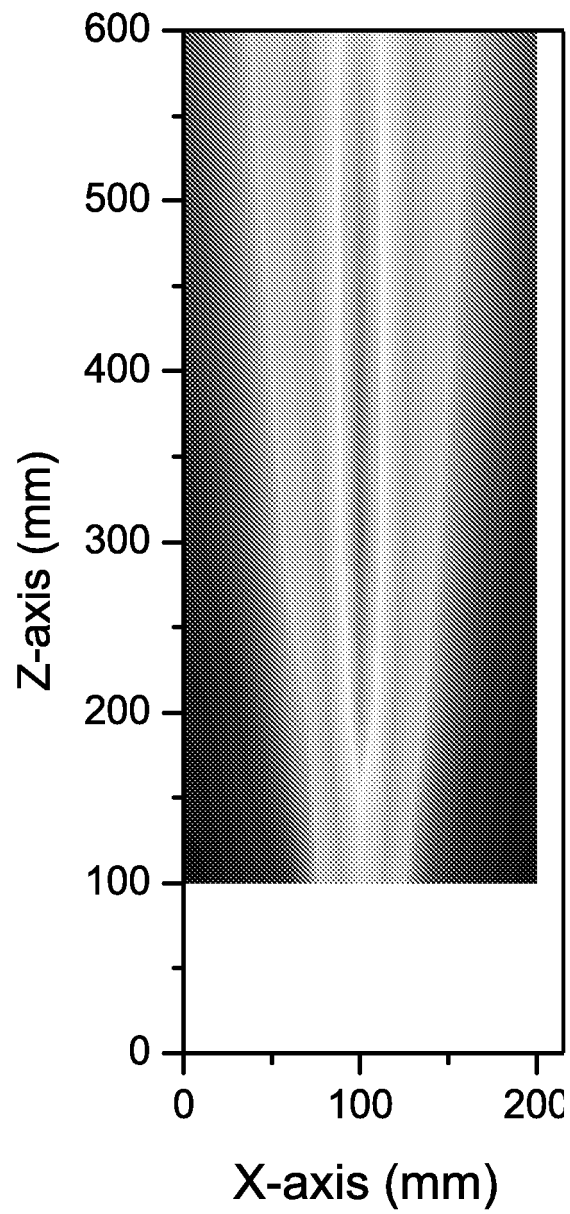


Fig. 6B



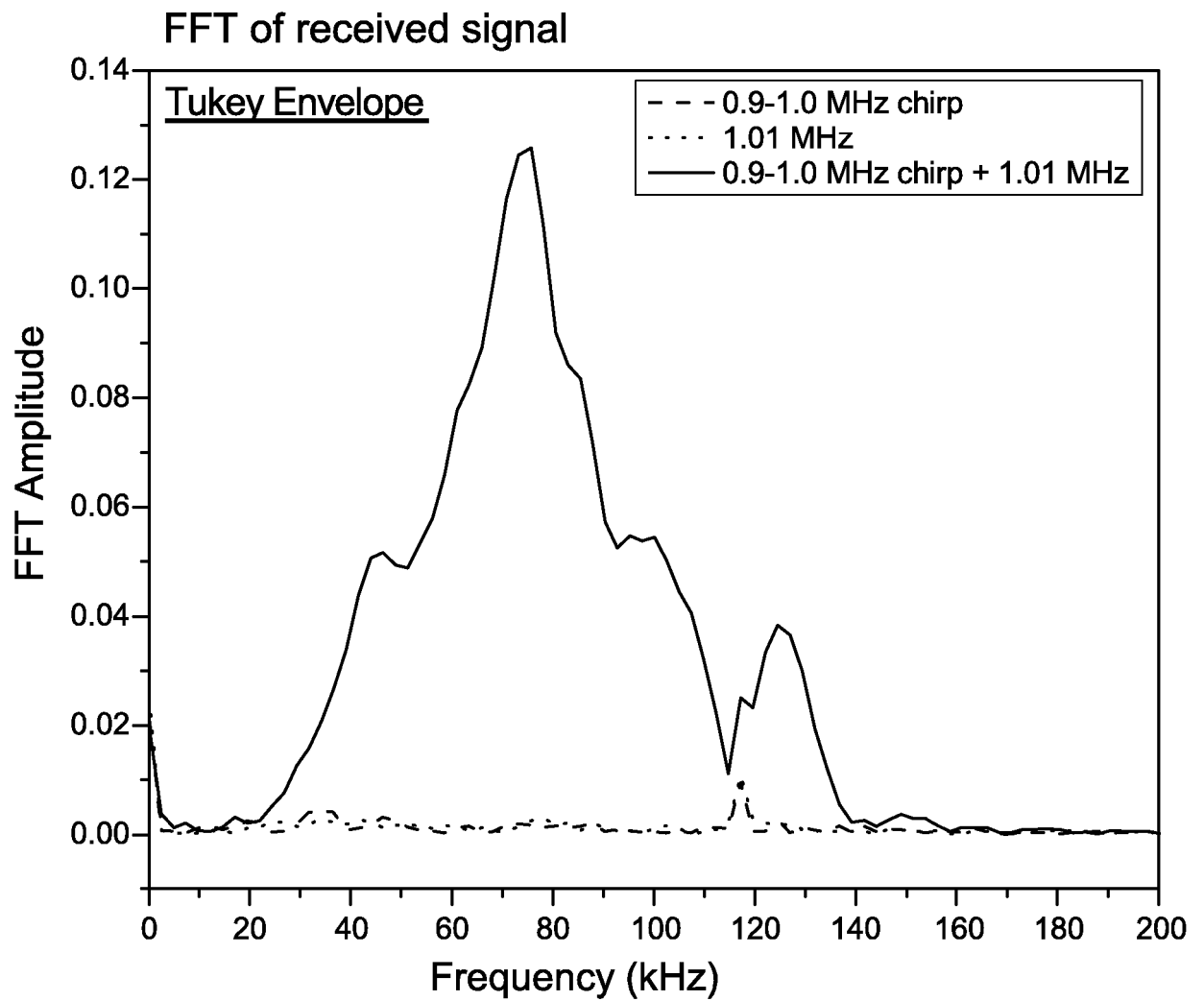


Fig. 6C

Fig. 7A

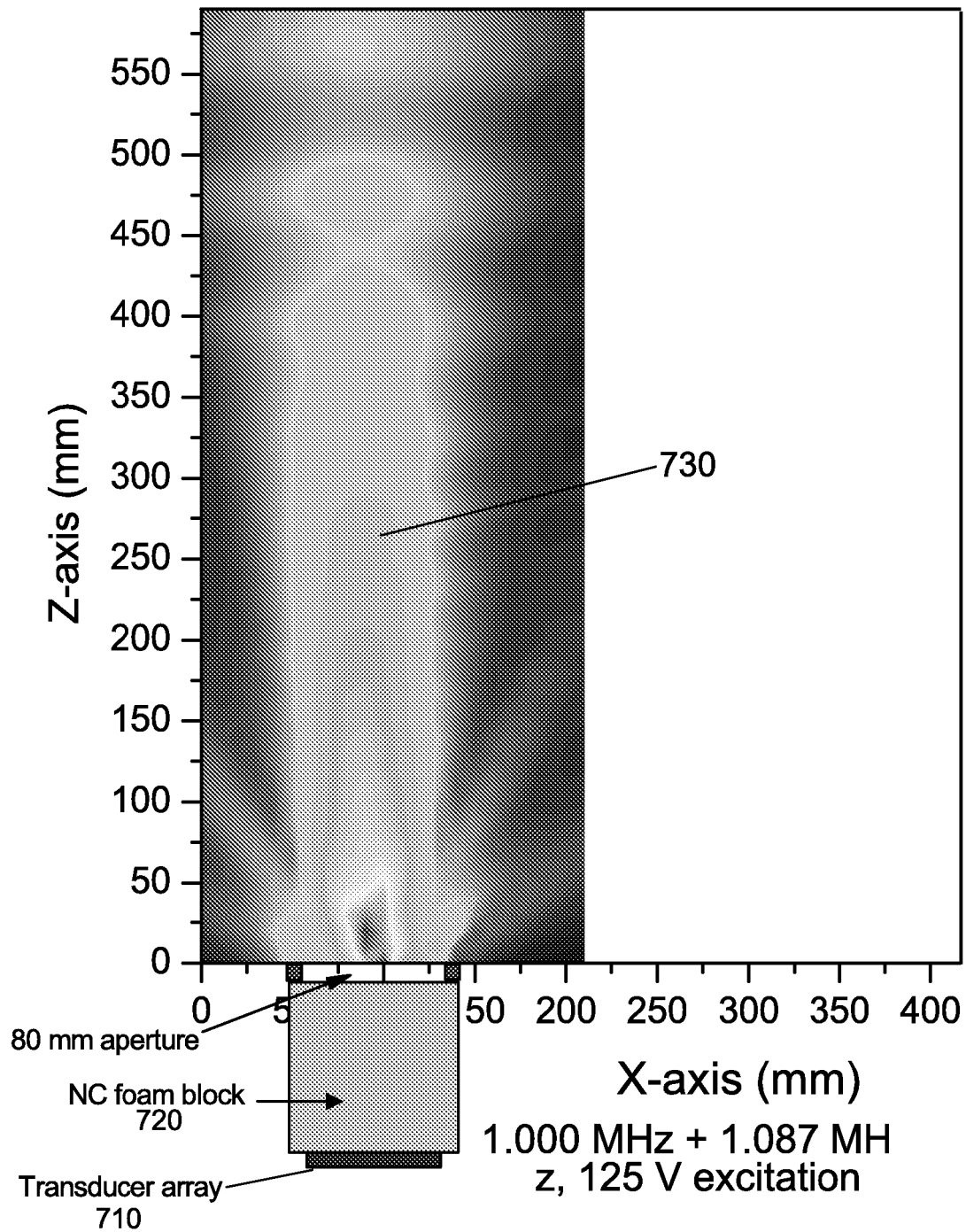


Fig. 7B
Difference signal

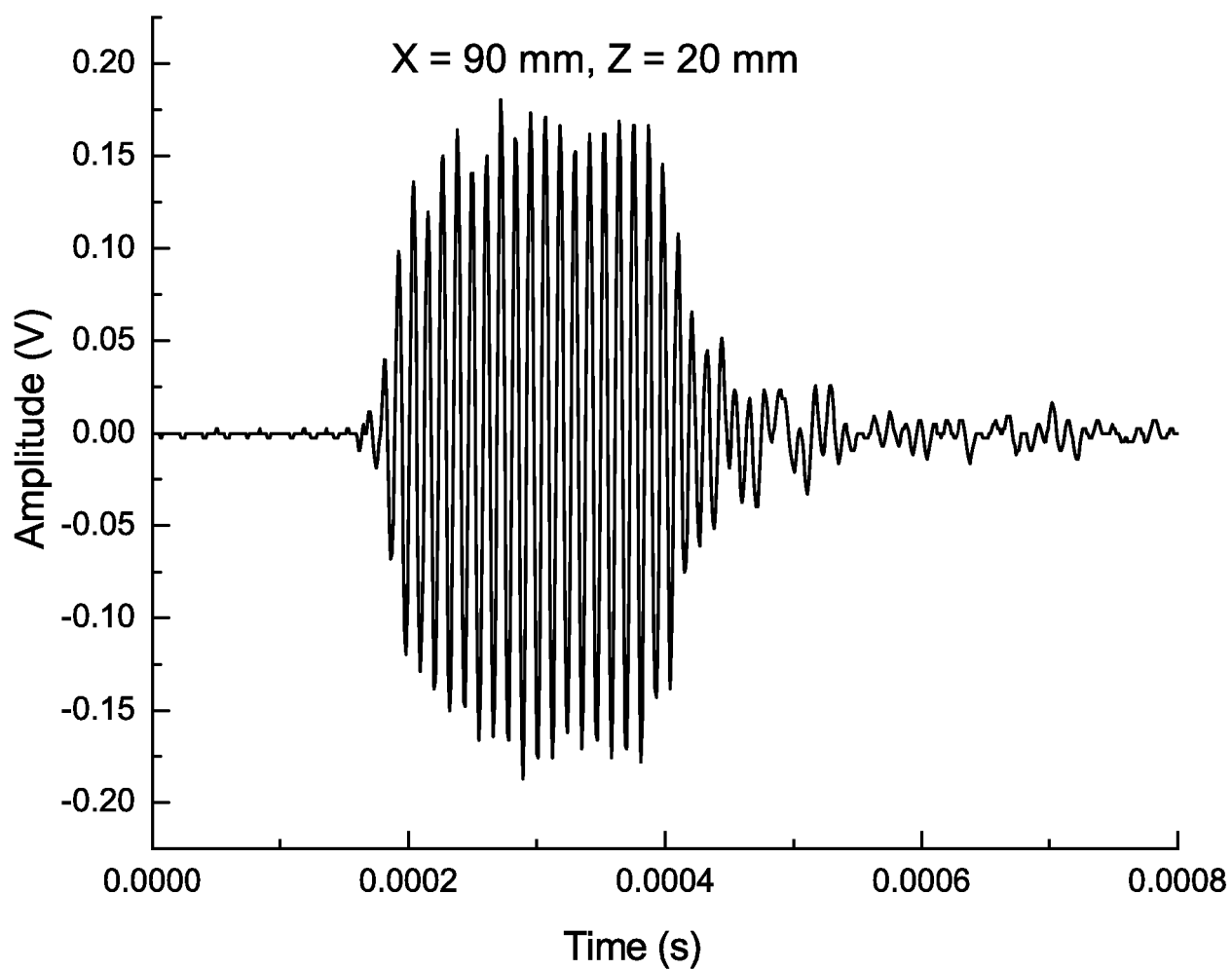
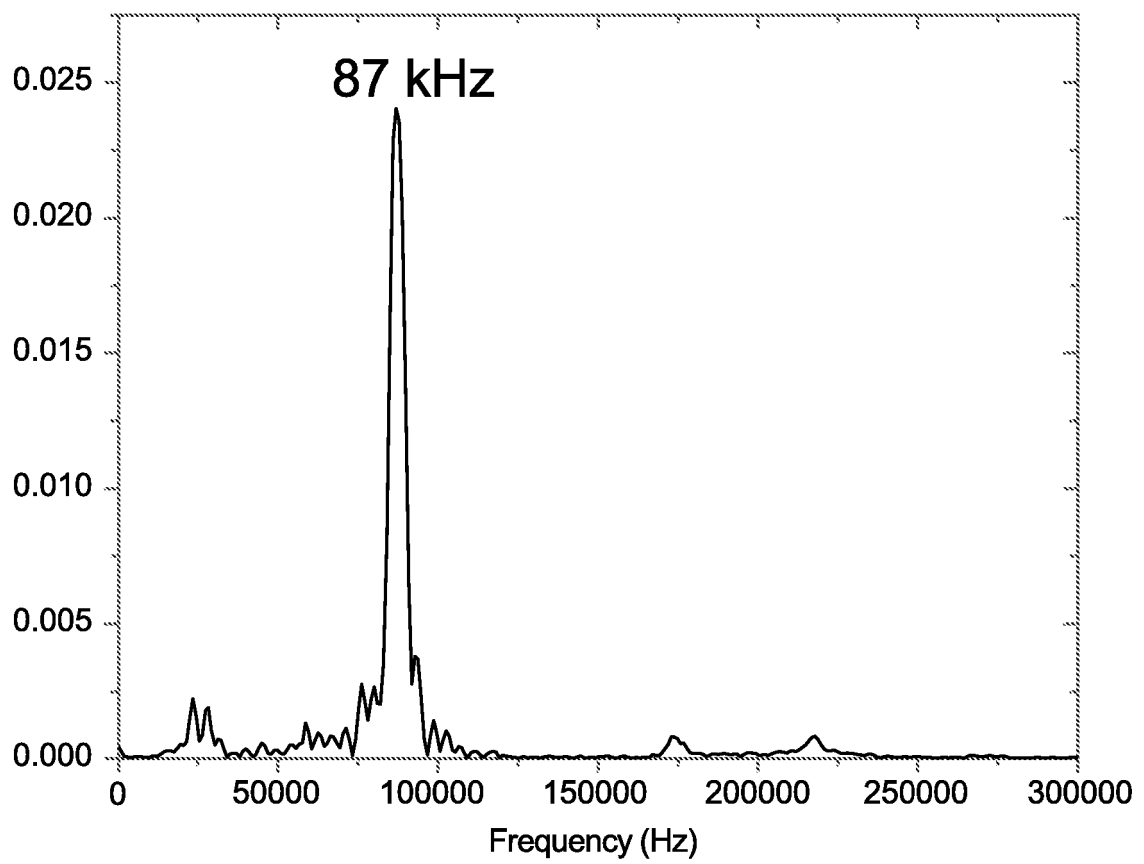


Fig. 7C
FFT of difference signal



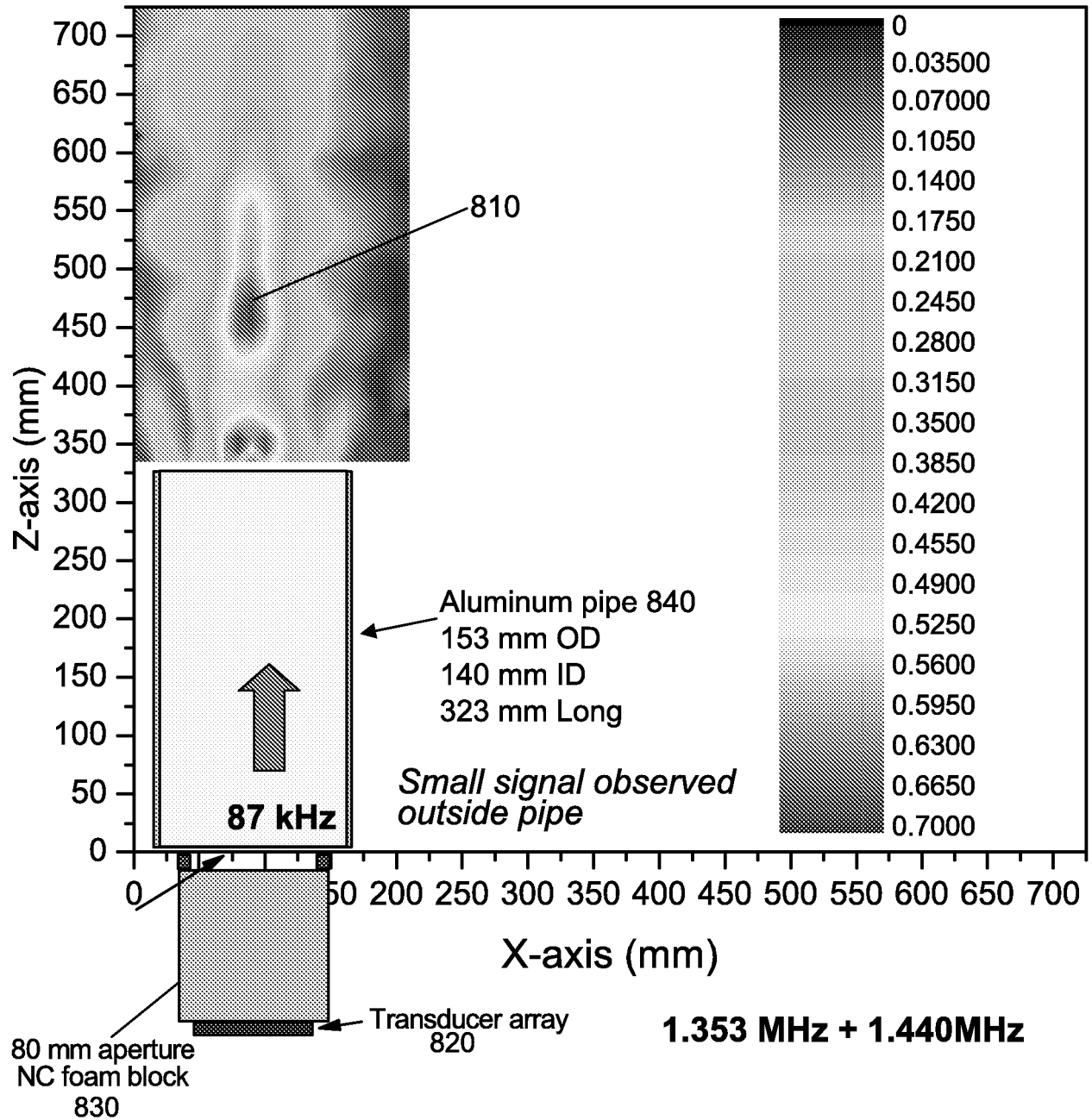


Fig. 8

Fig. 9

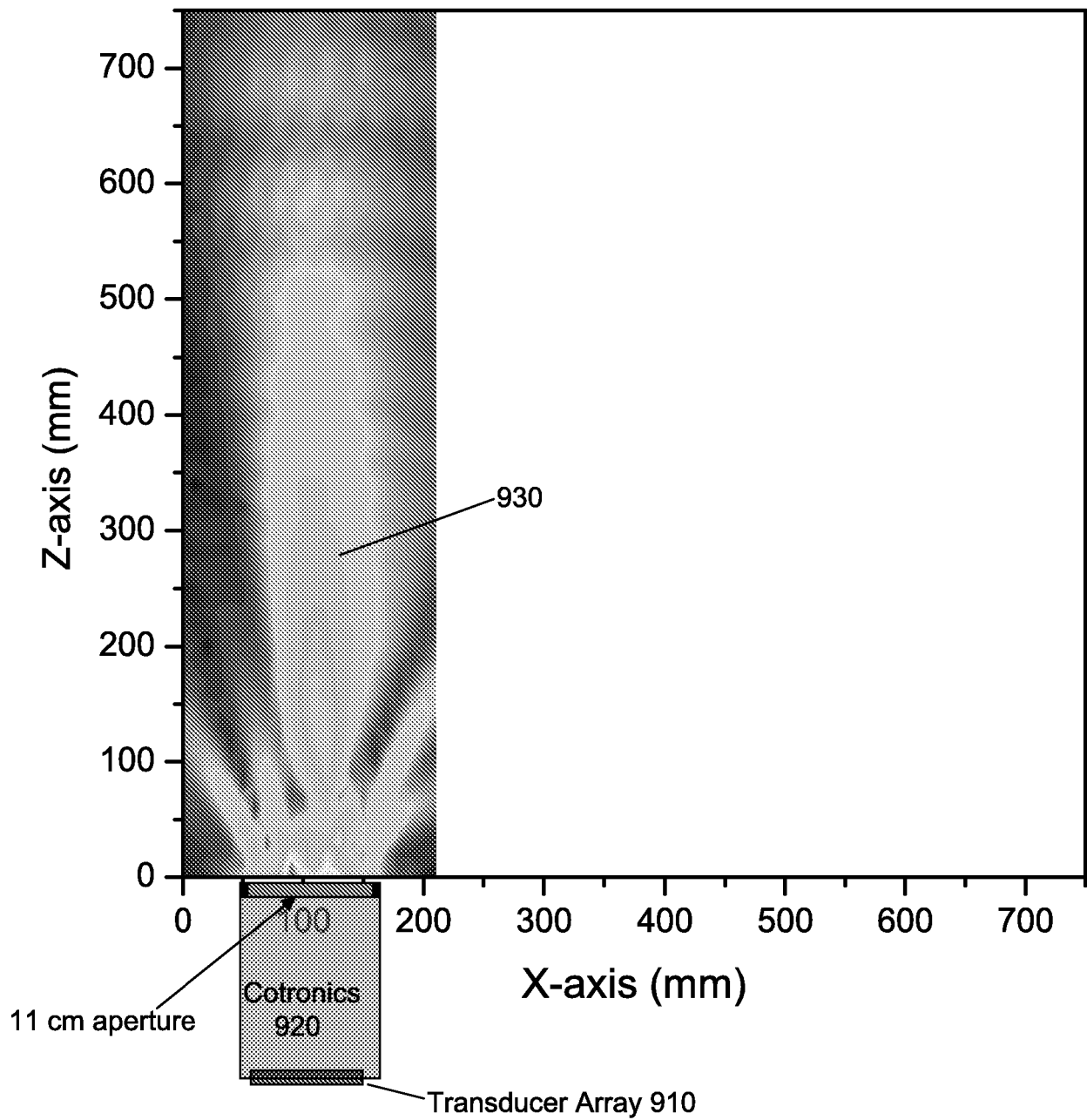
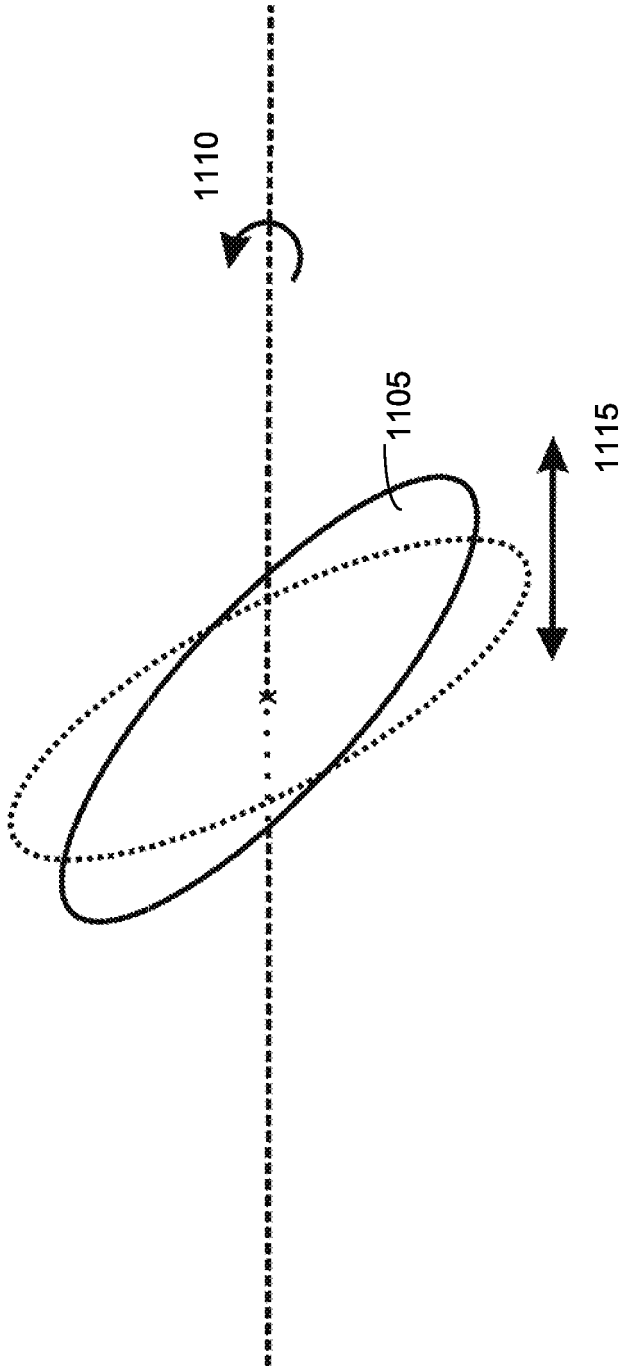


Fig. 11



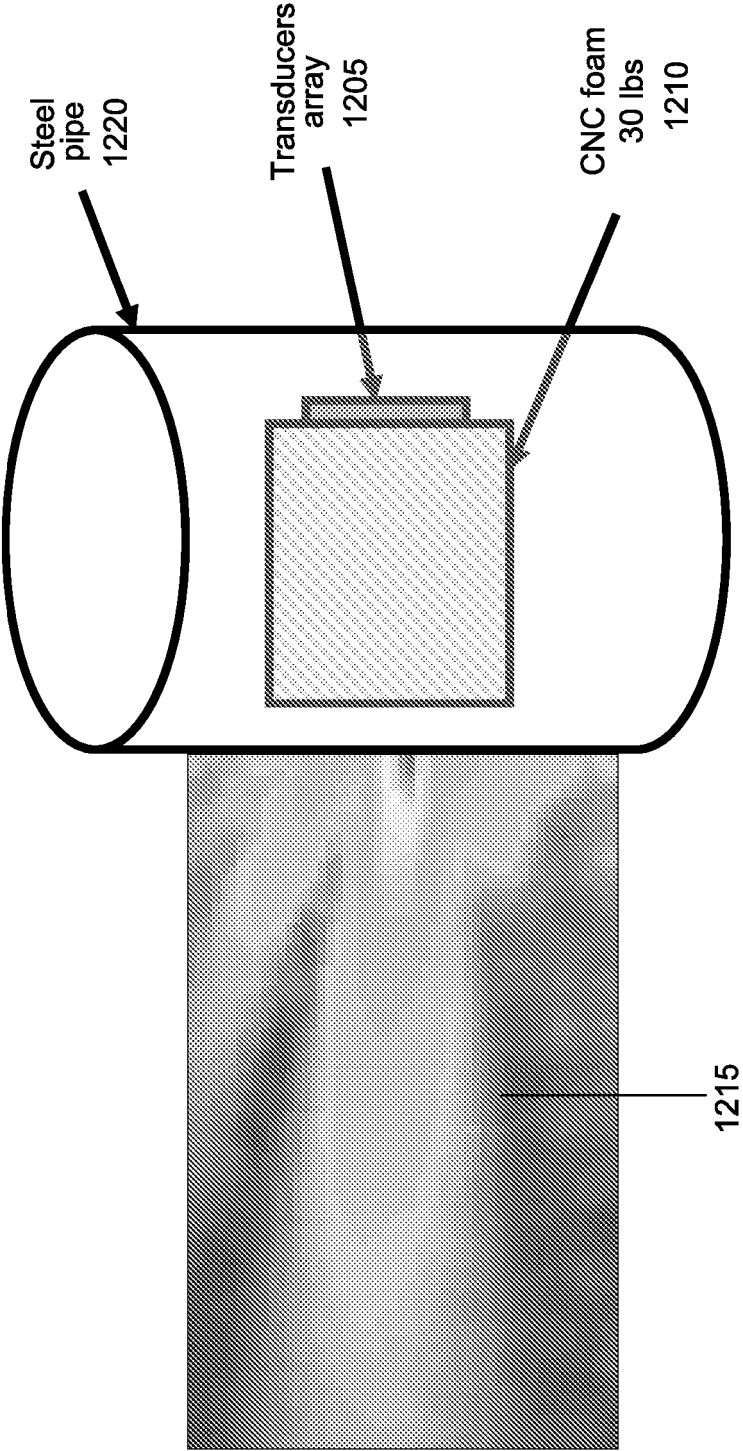


Fig. 12

Fig. 13B

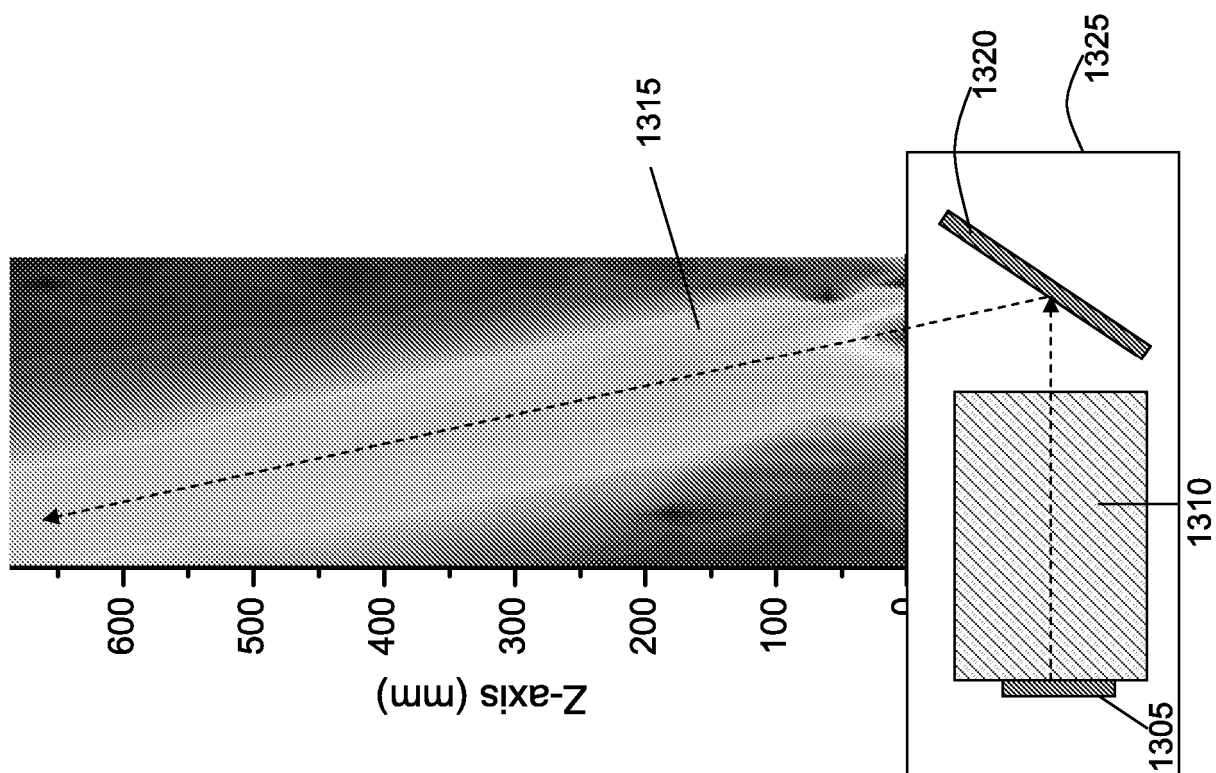


Fig. 13A

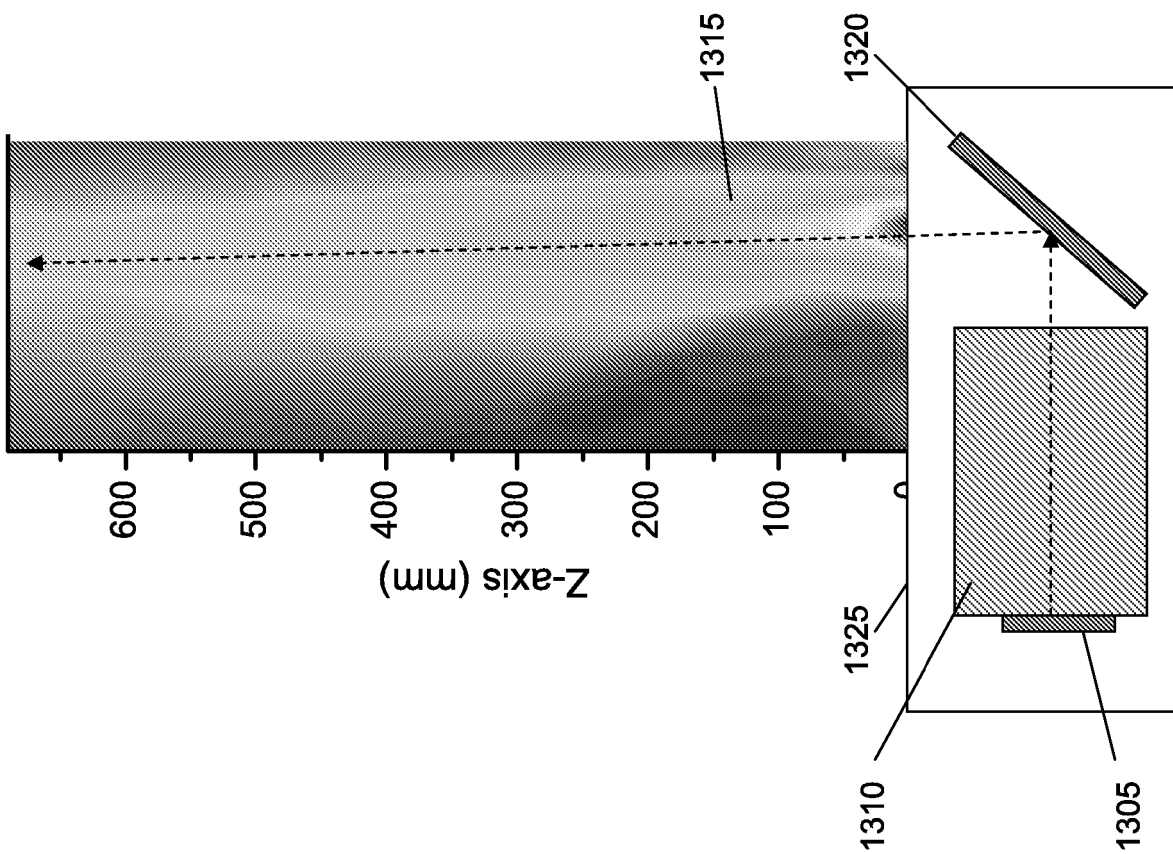
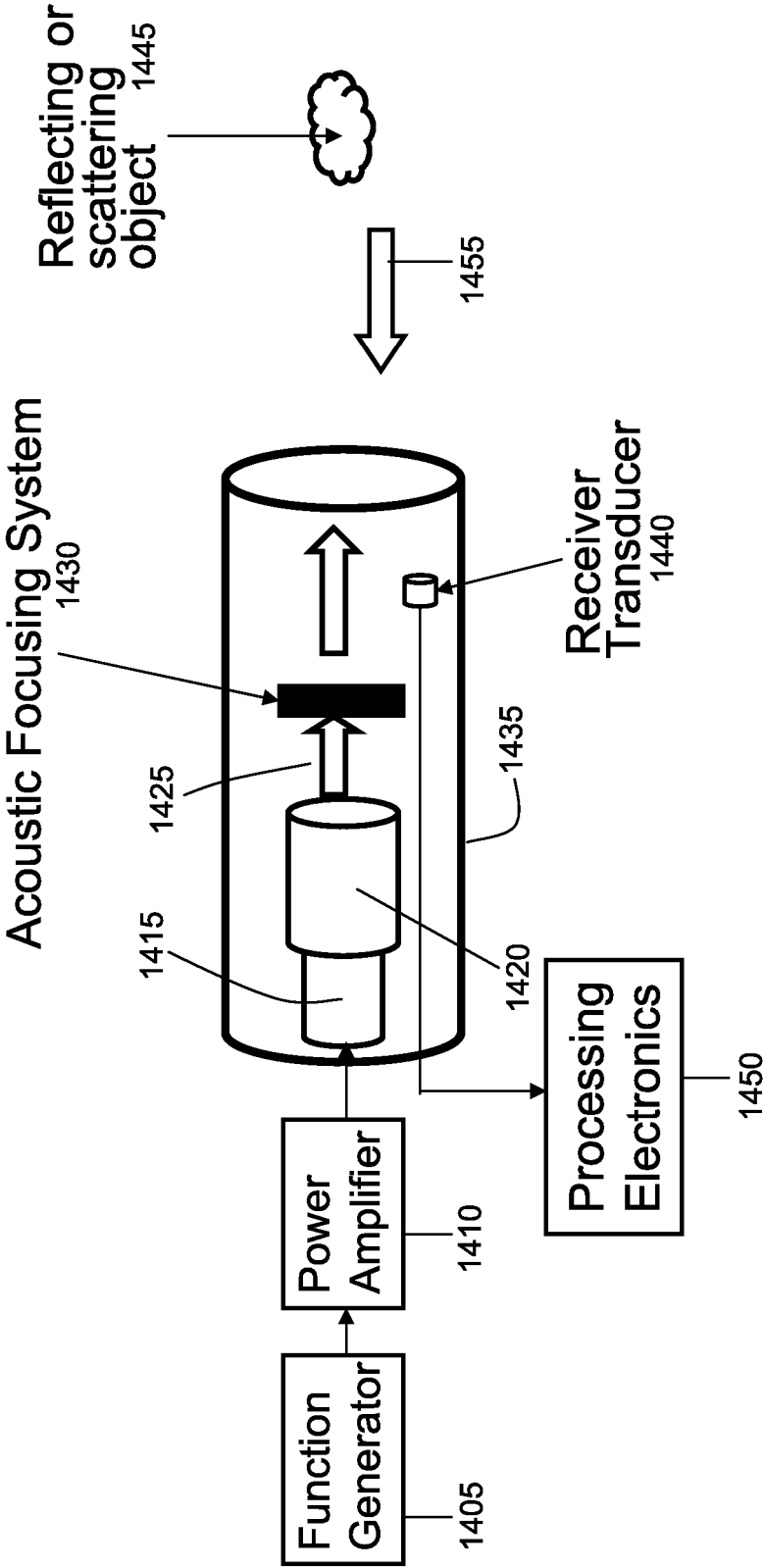


Fig. 14



Imaging of Object Outside Pipe

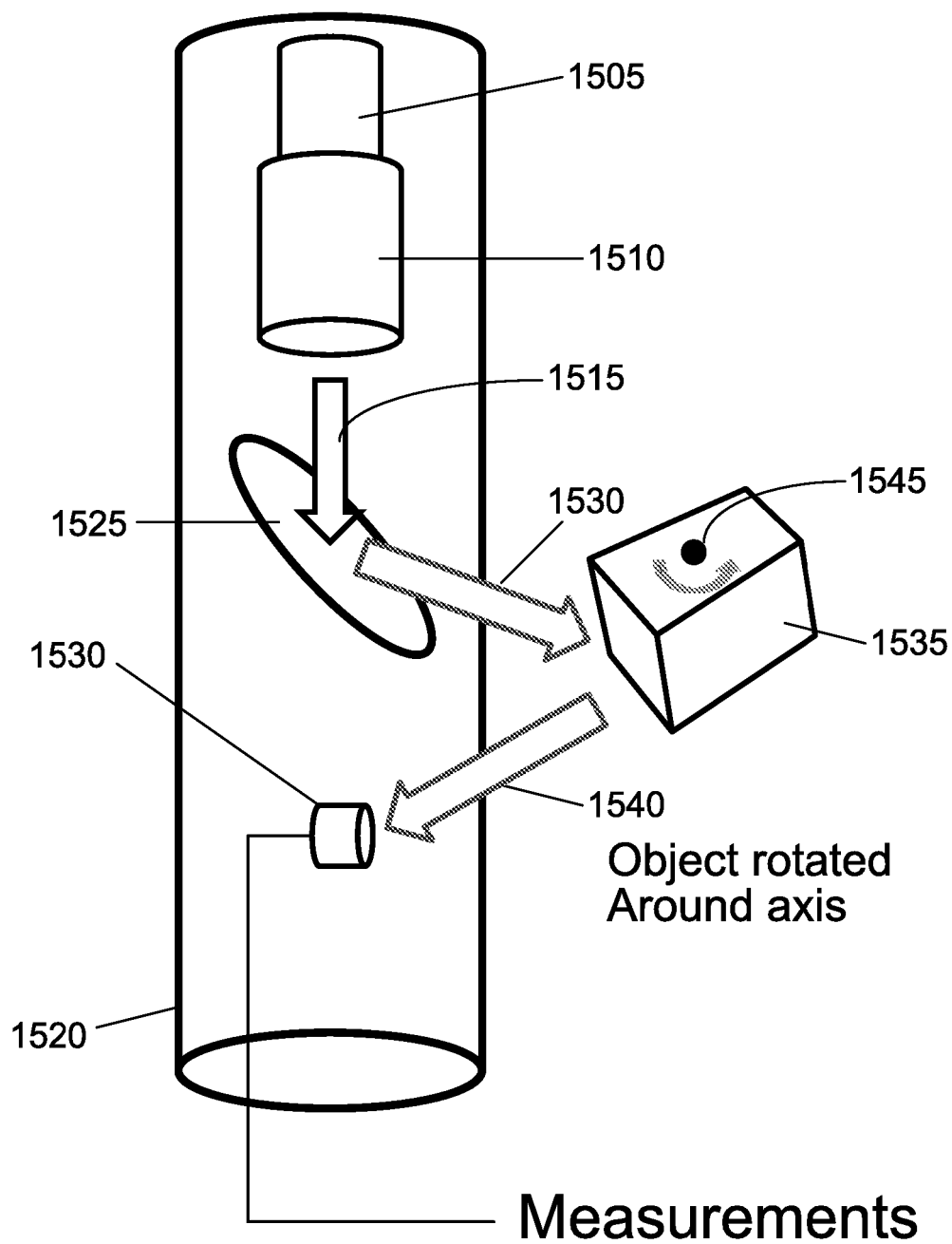
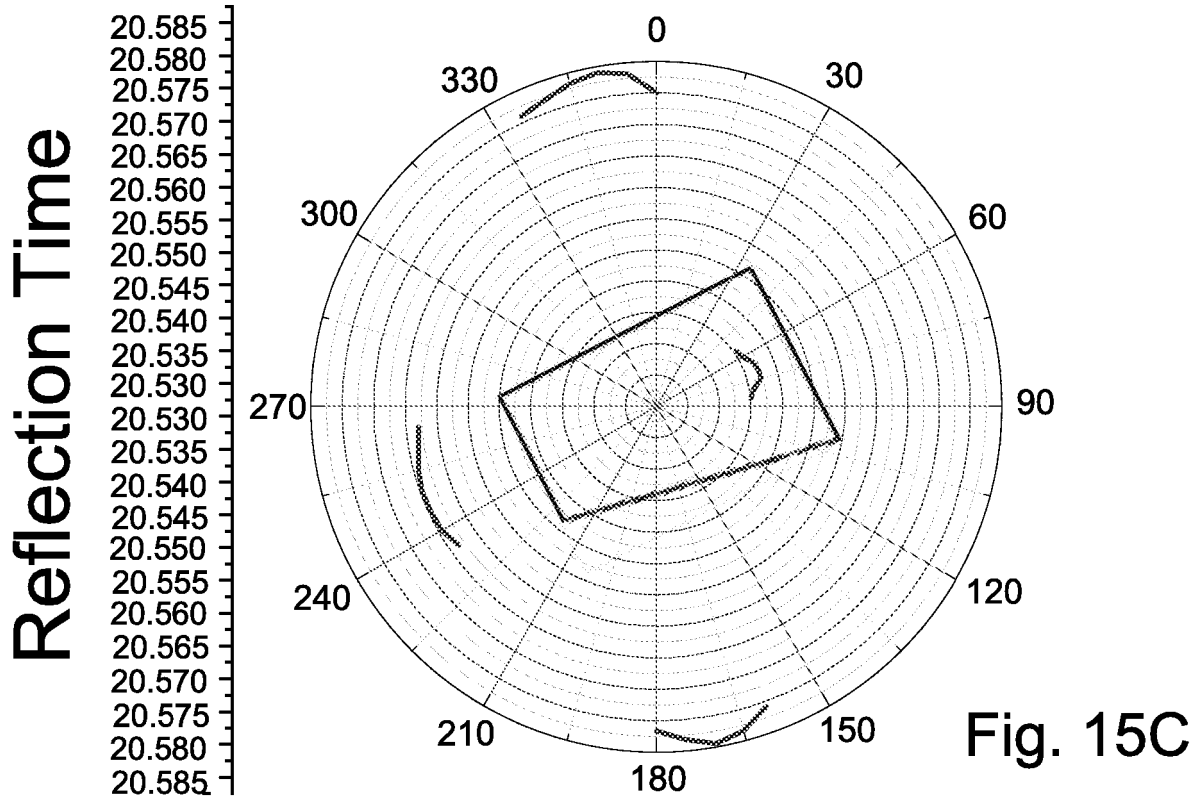
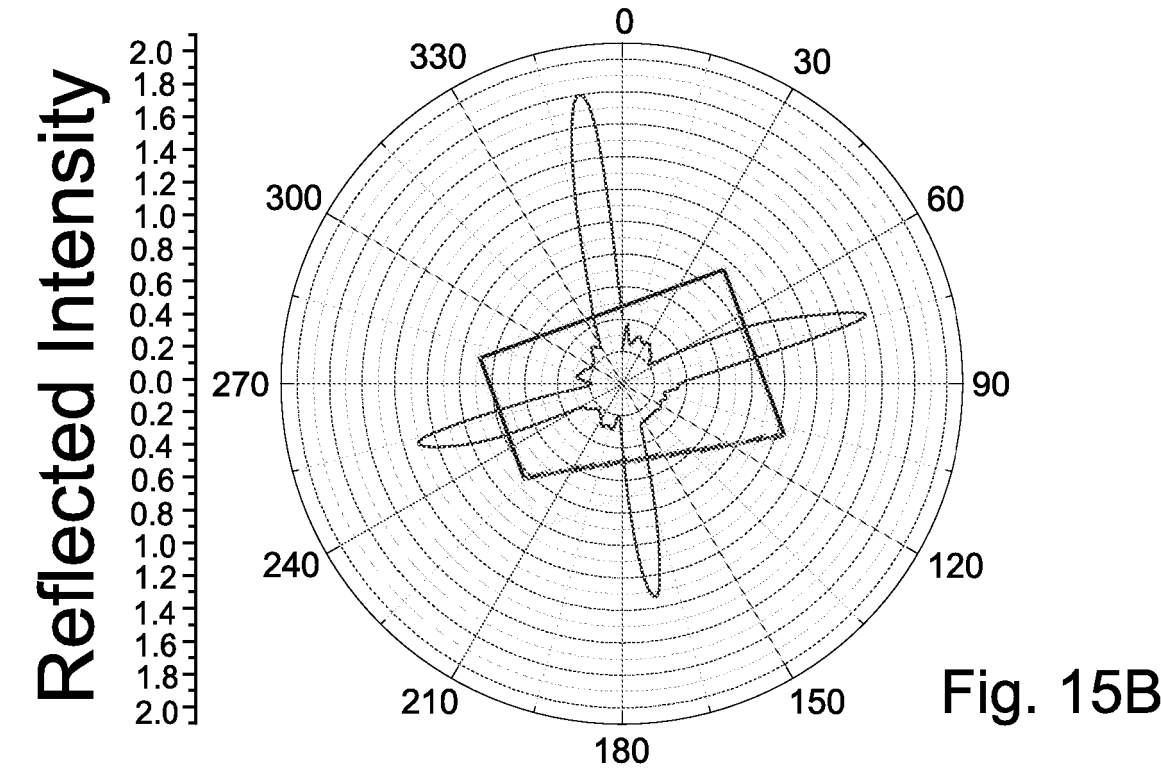


Fig. 15A



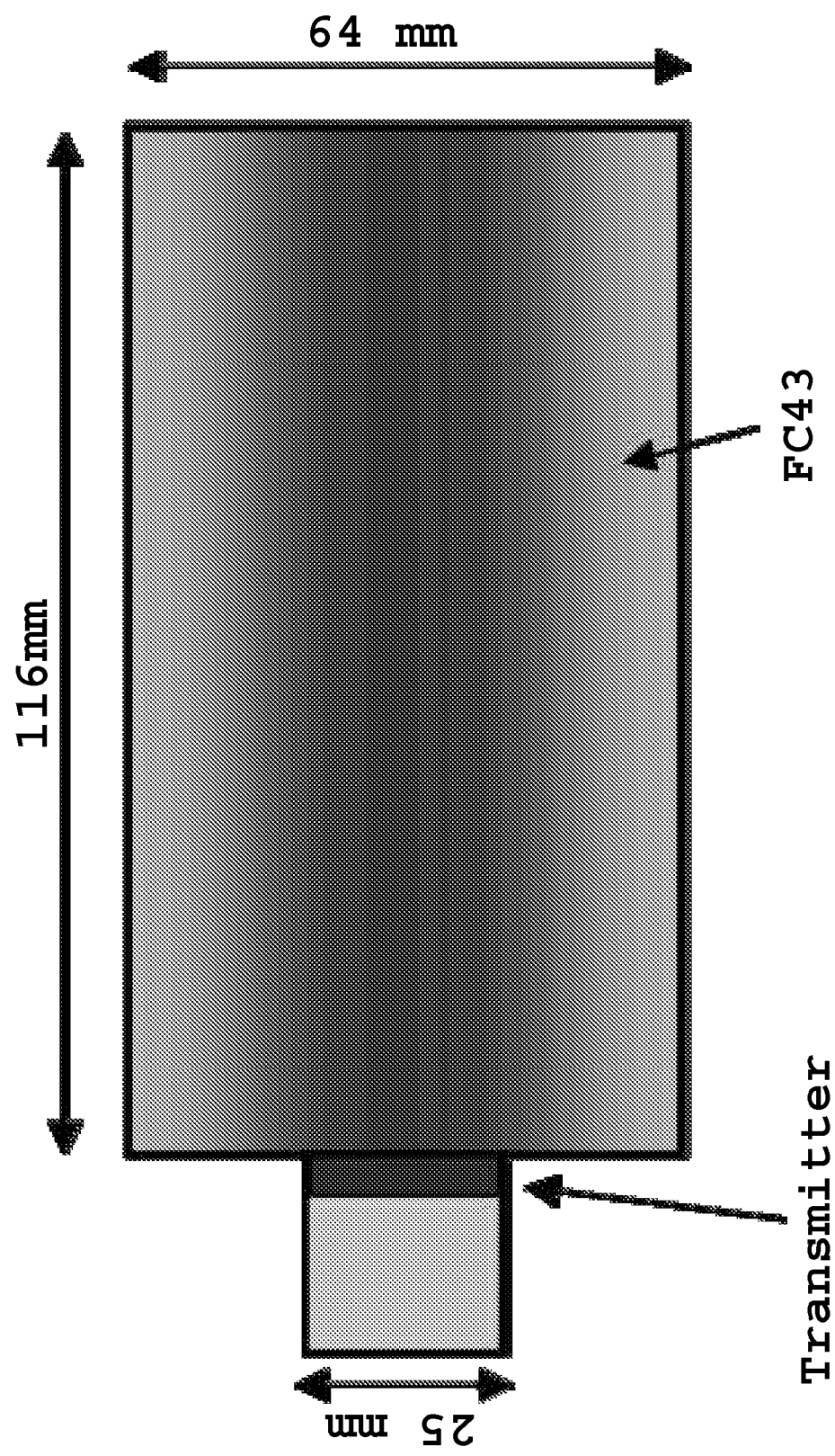
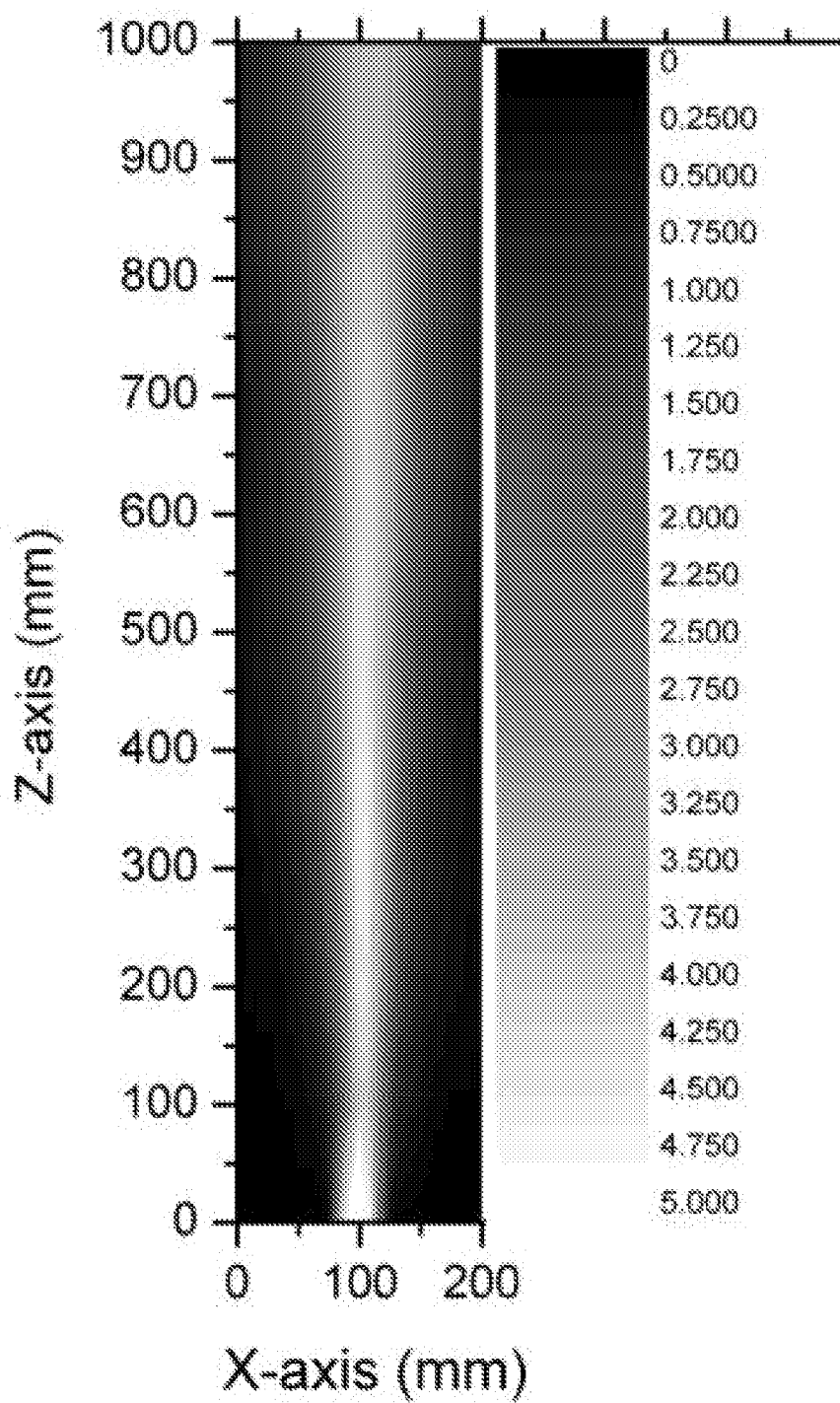


Figure 16

**Figure 17**

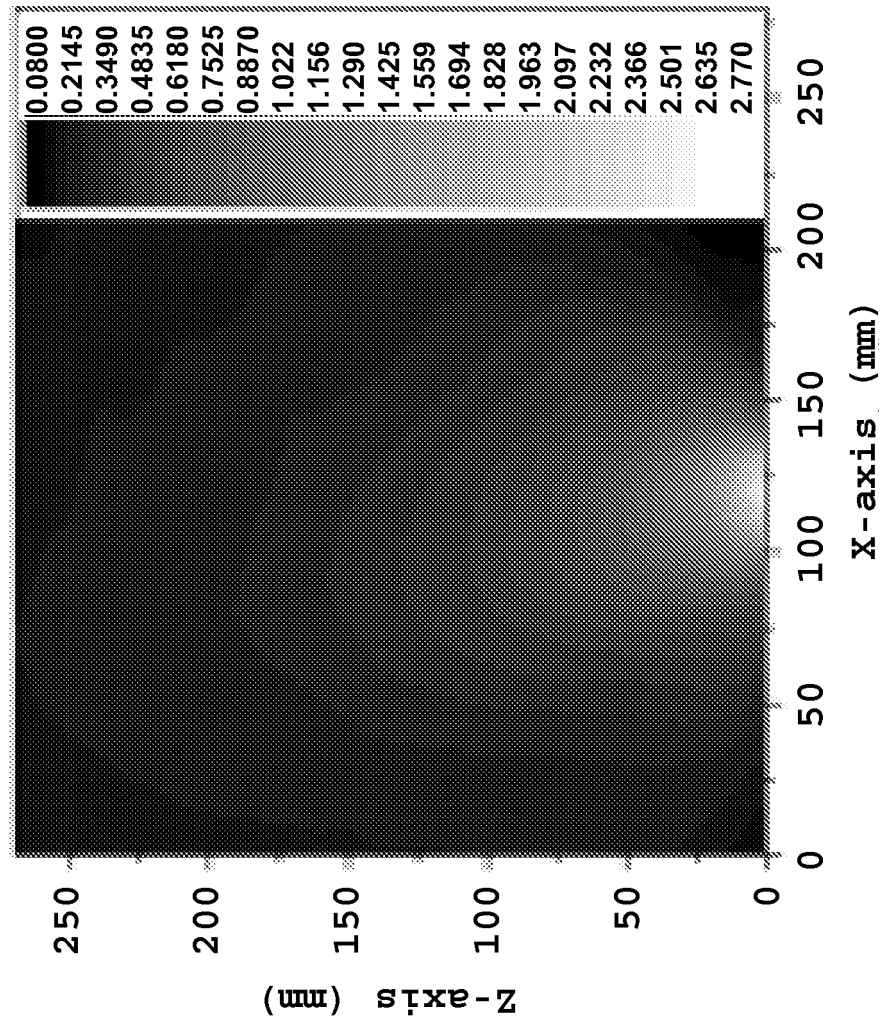


Figure 17 cont'd

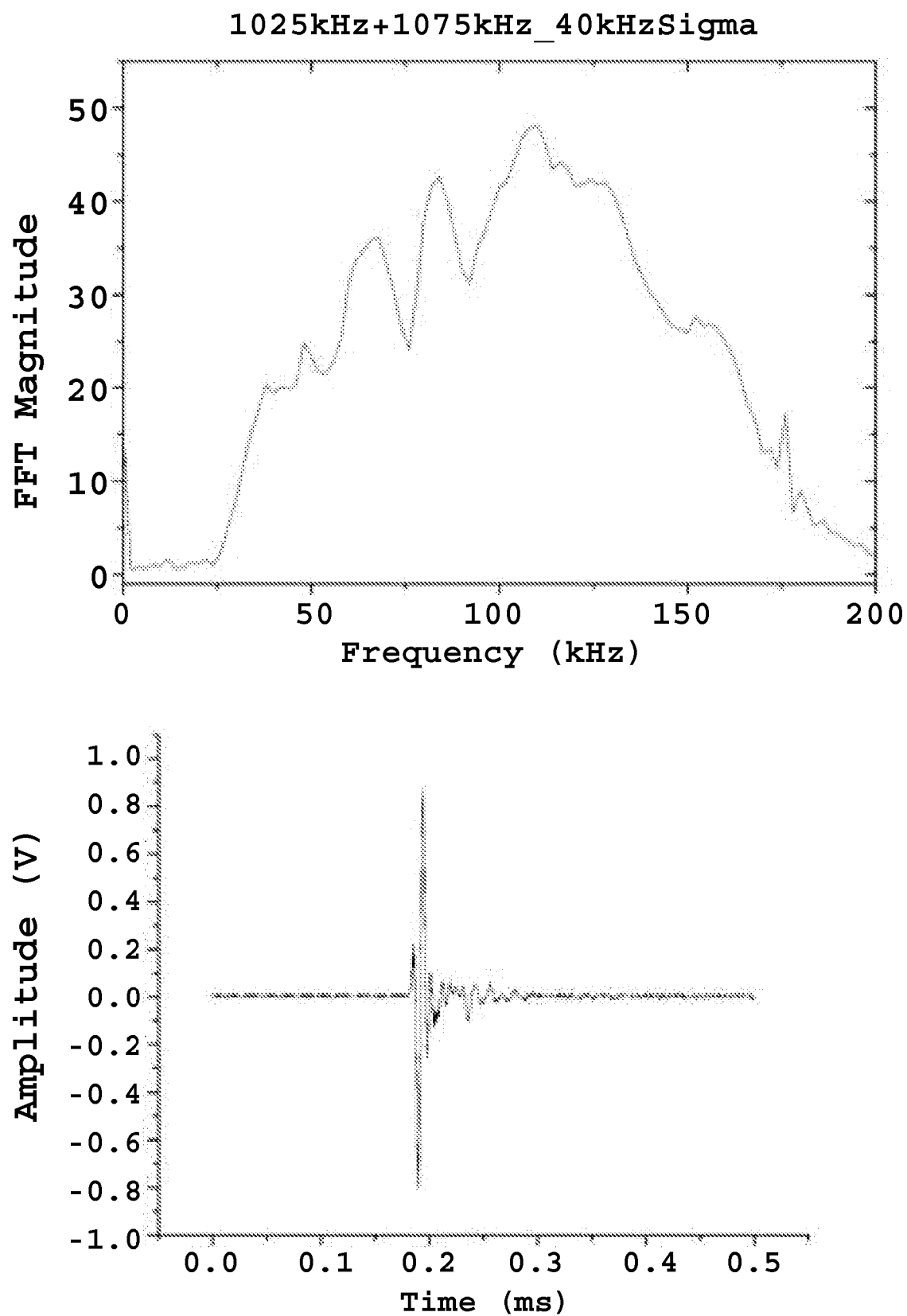
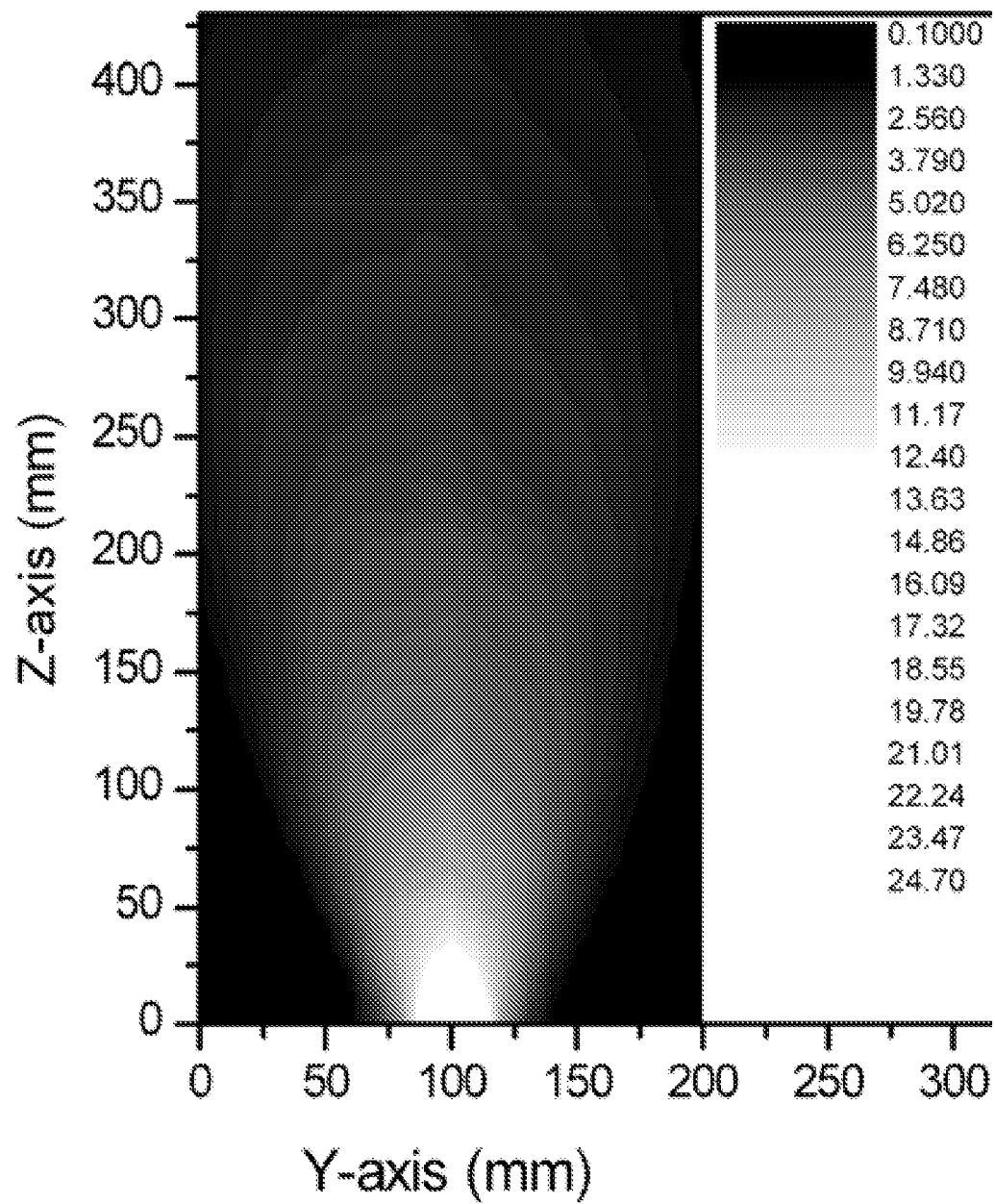


Figure 18

**Figure 18 cont'd**

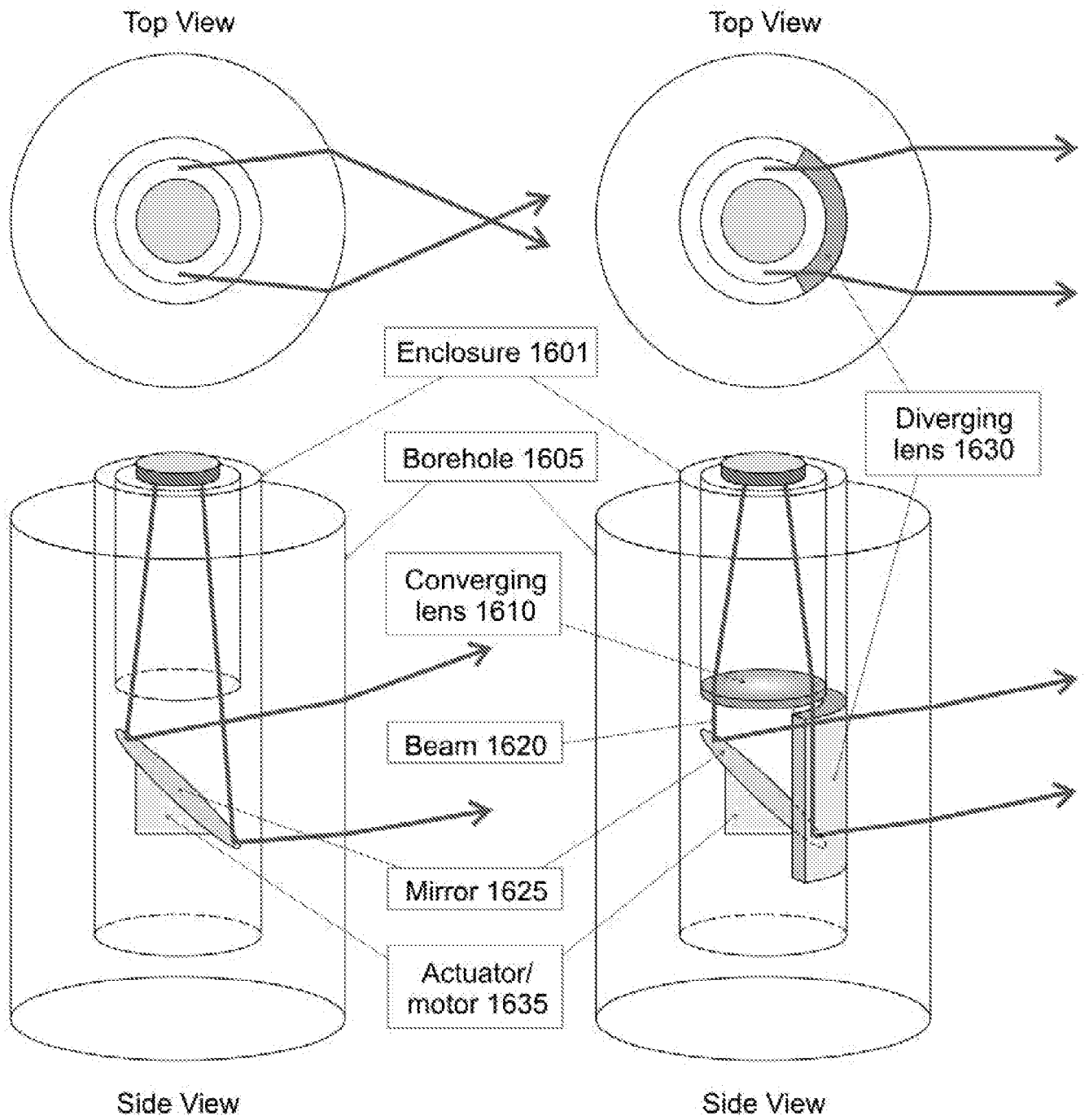


Figure 19a

Figure 19b

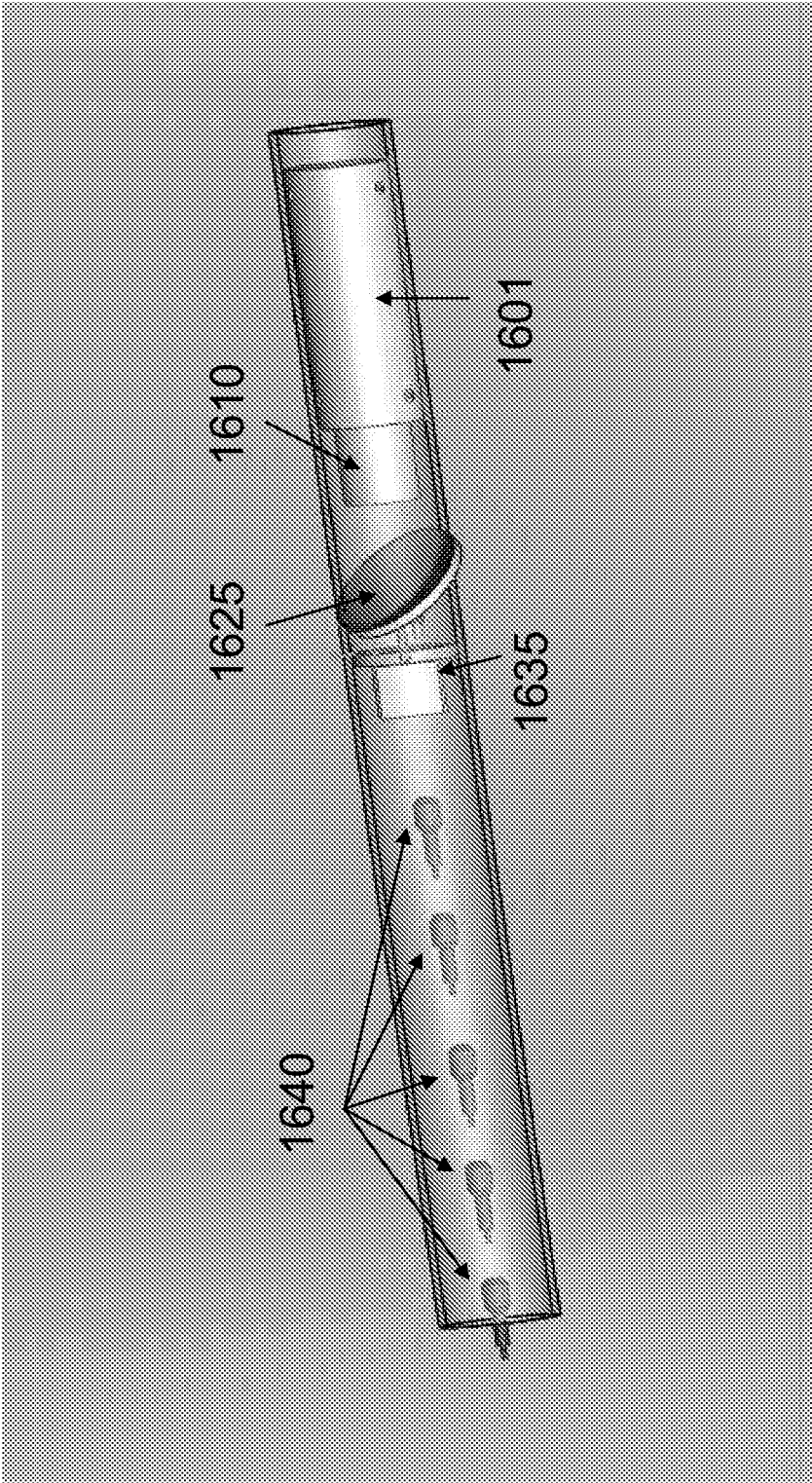
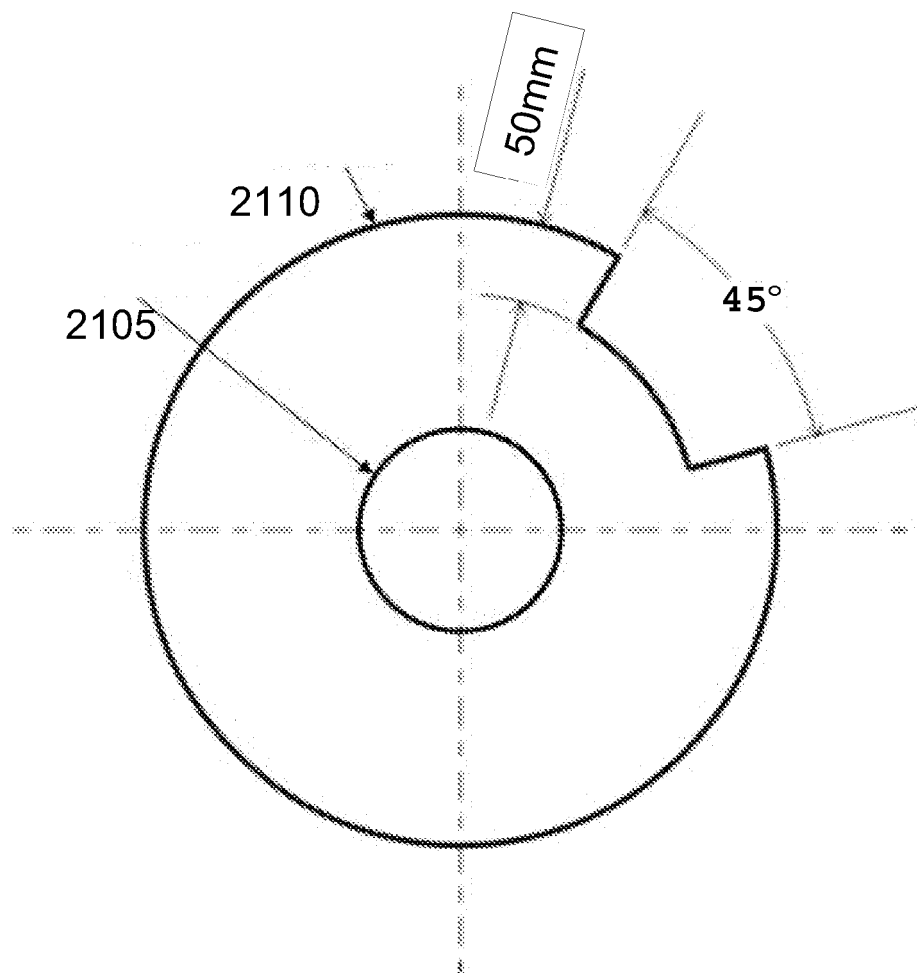


Figure 20



Plan view of proposed vertical cut in barrel

Figure 21a

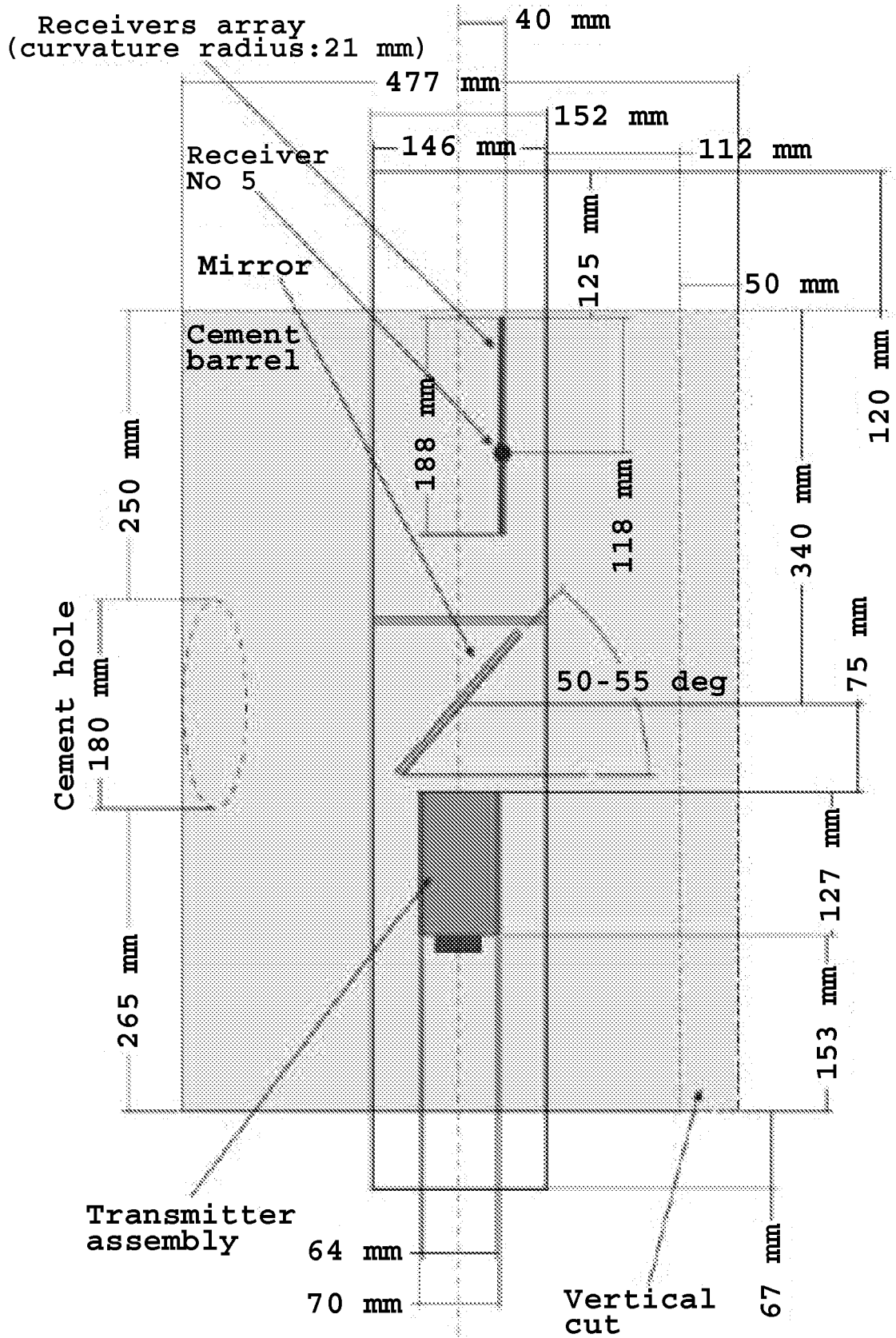
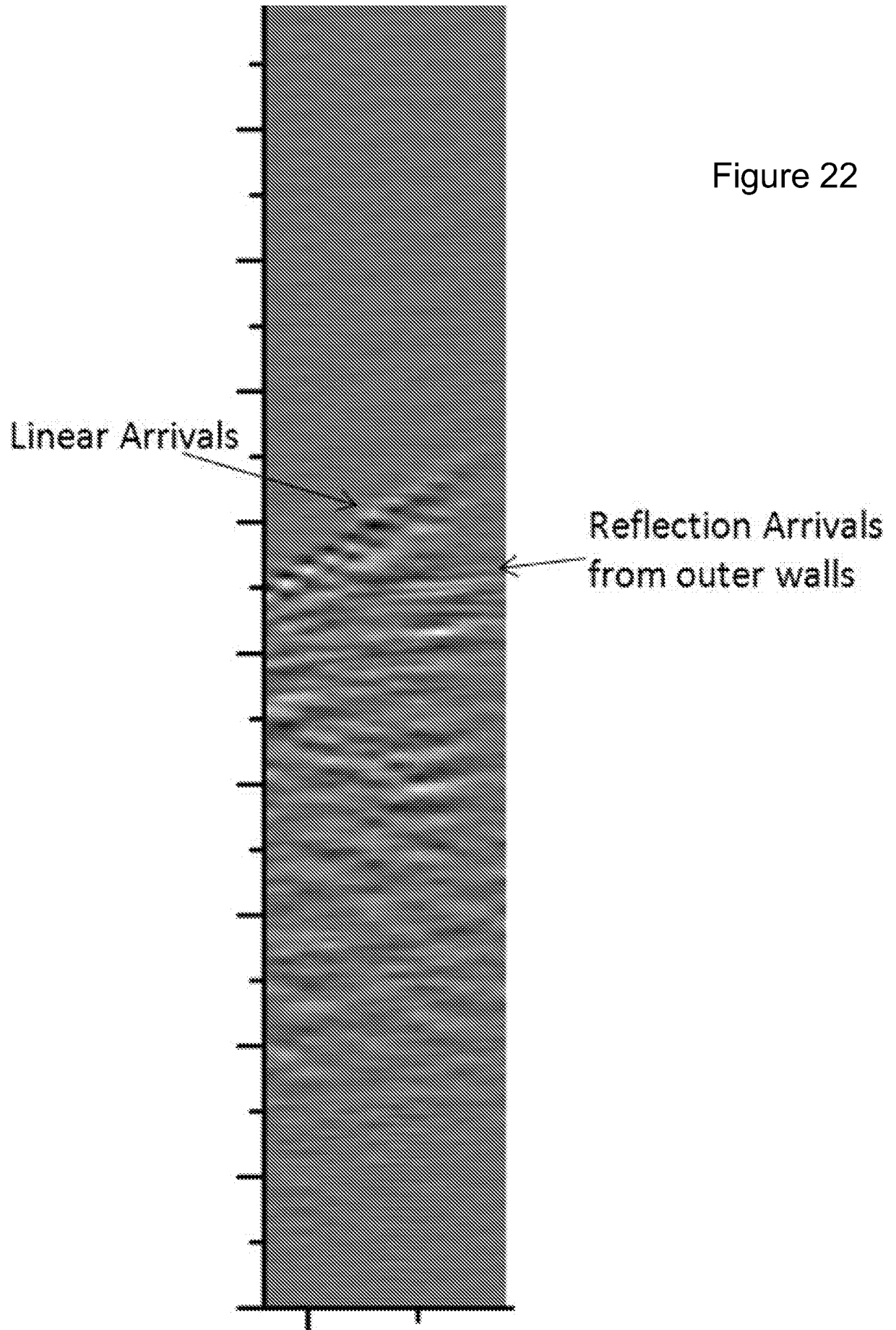
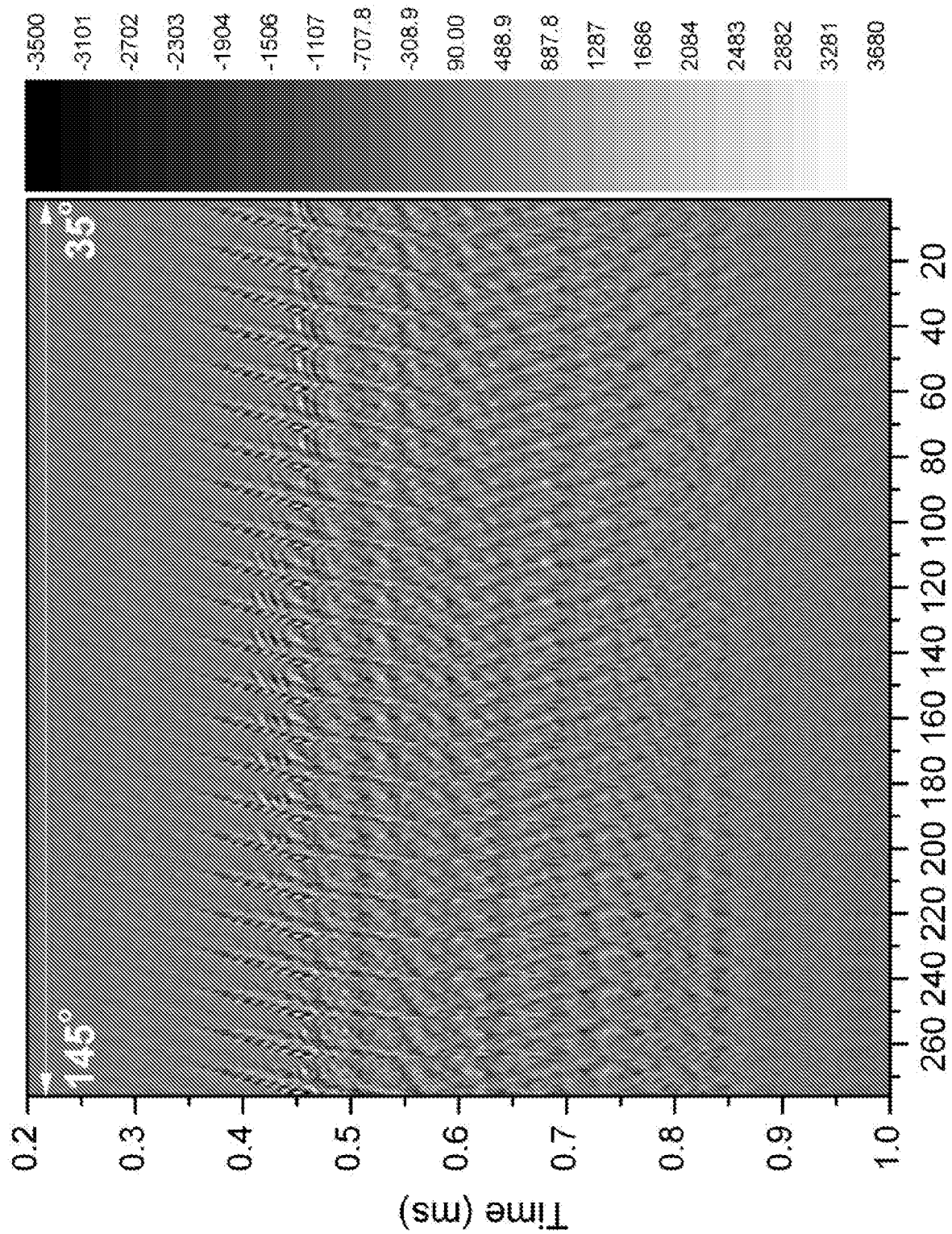


Figure 21b





Waveform No. **Figure 23**

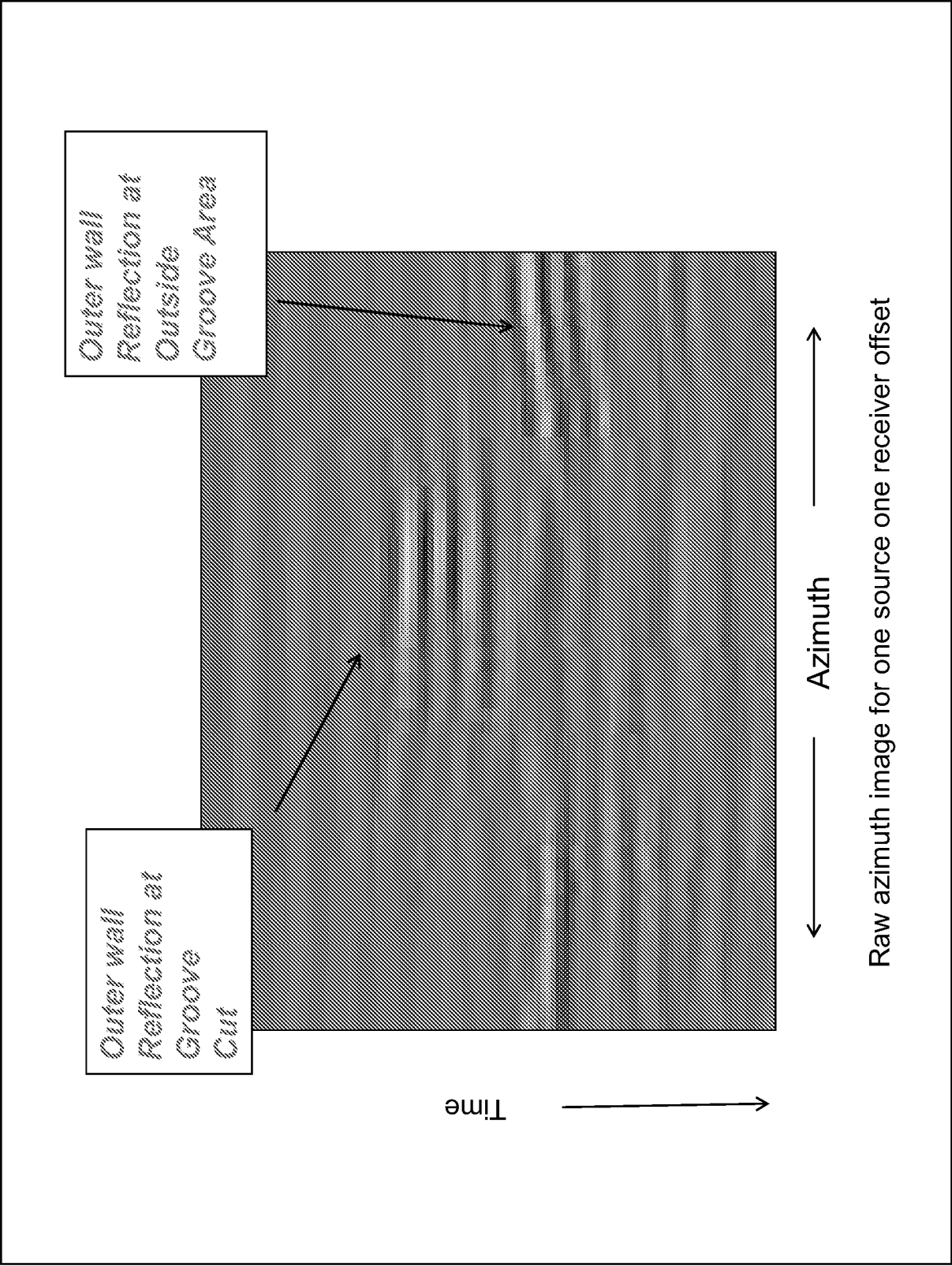


Figure 24