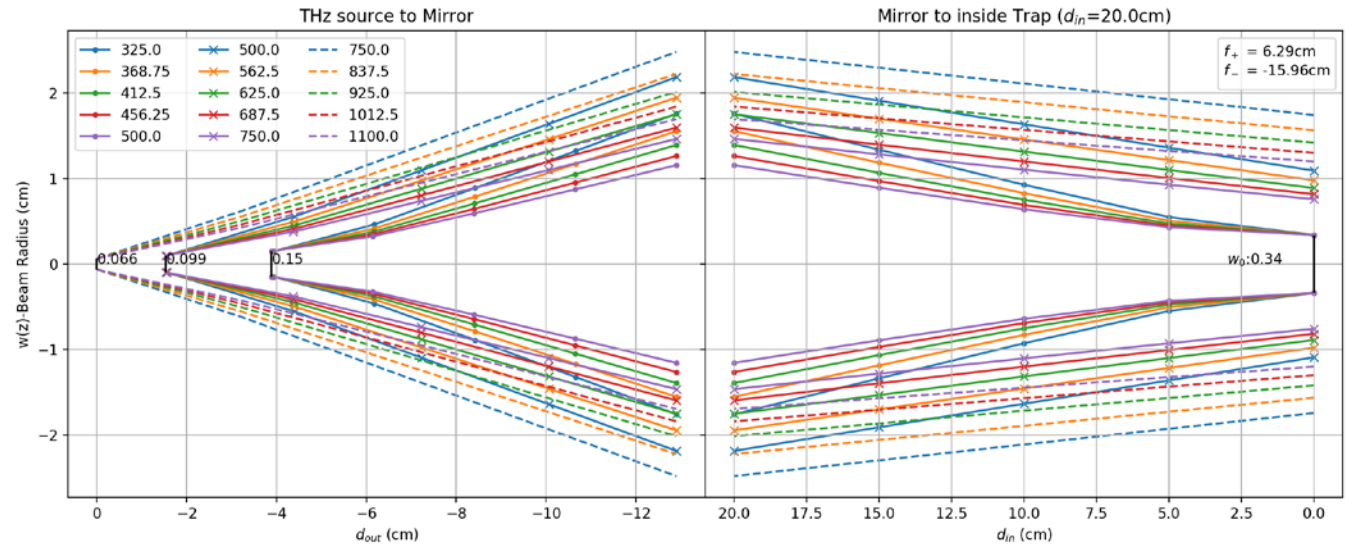
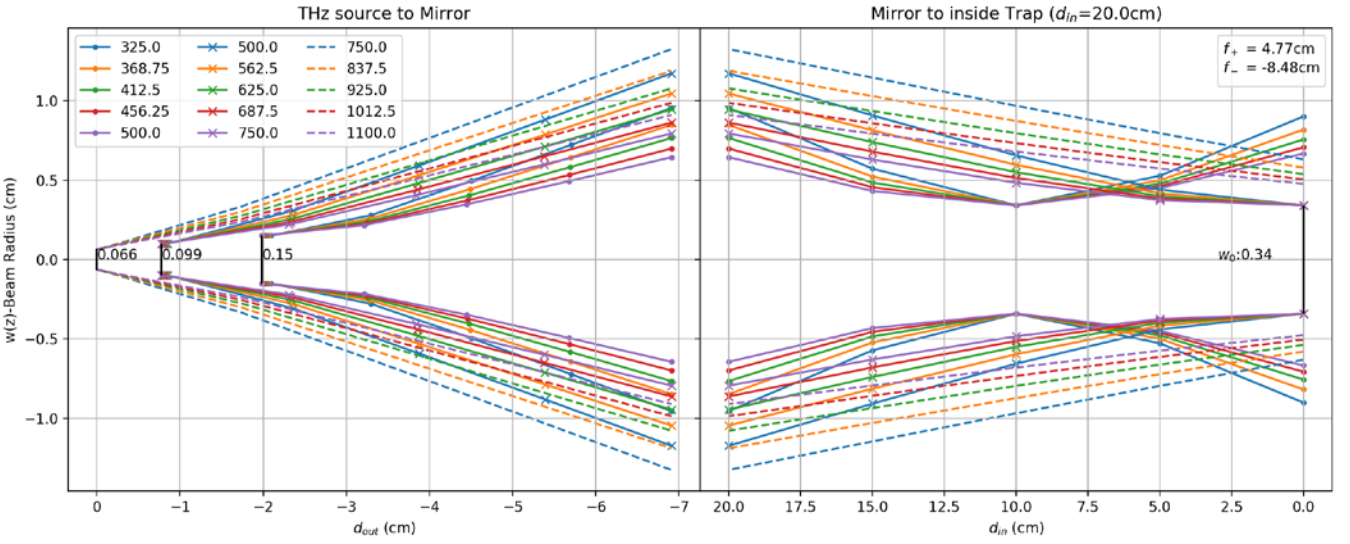
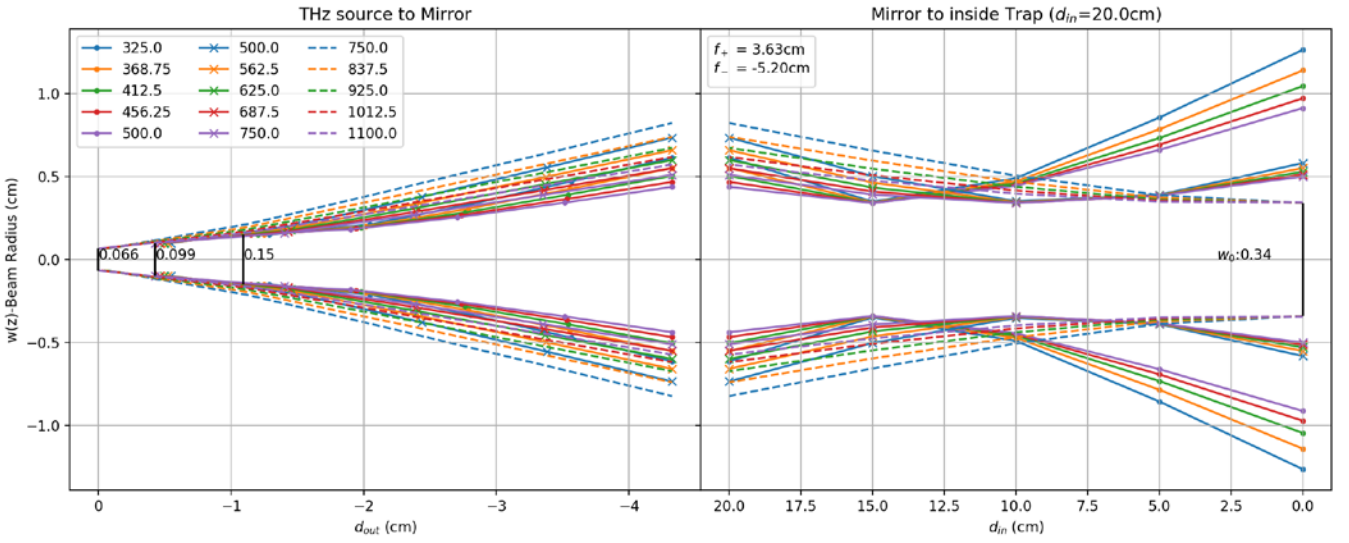
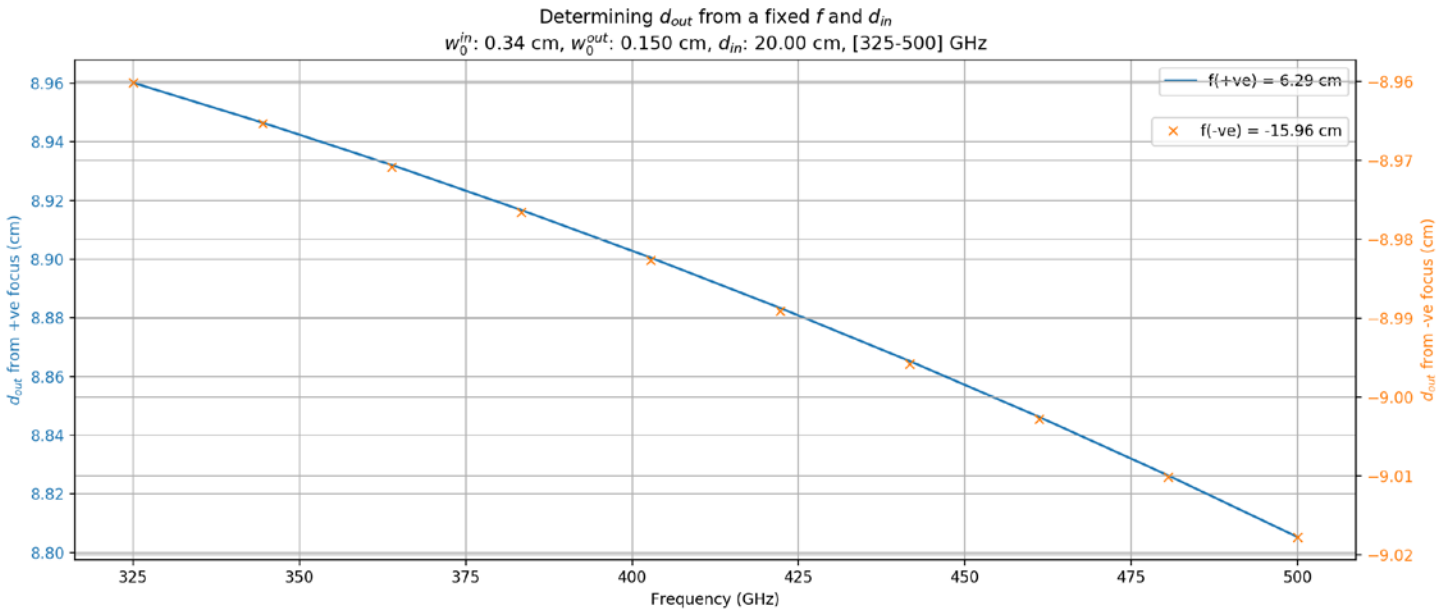
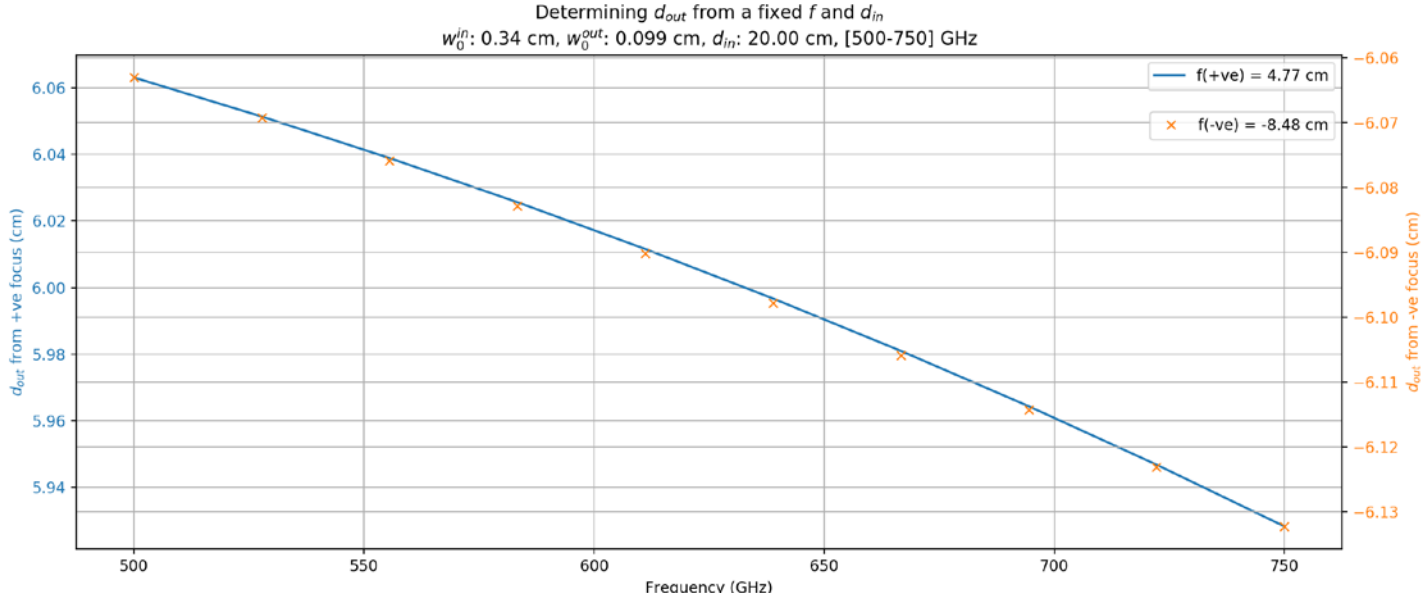
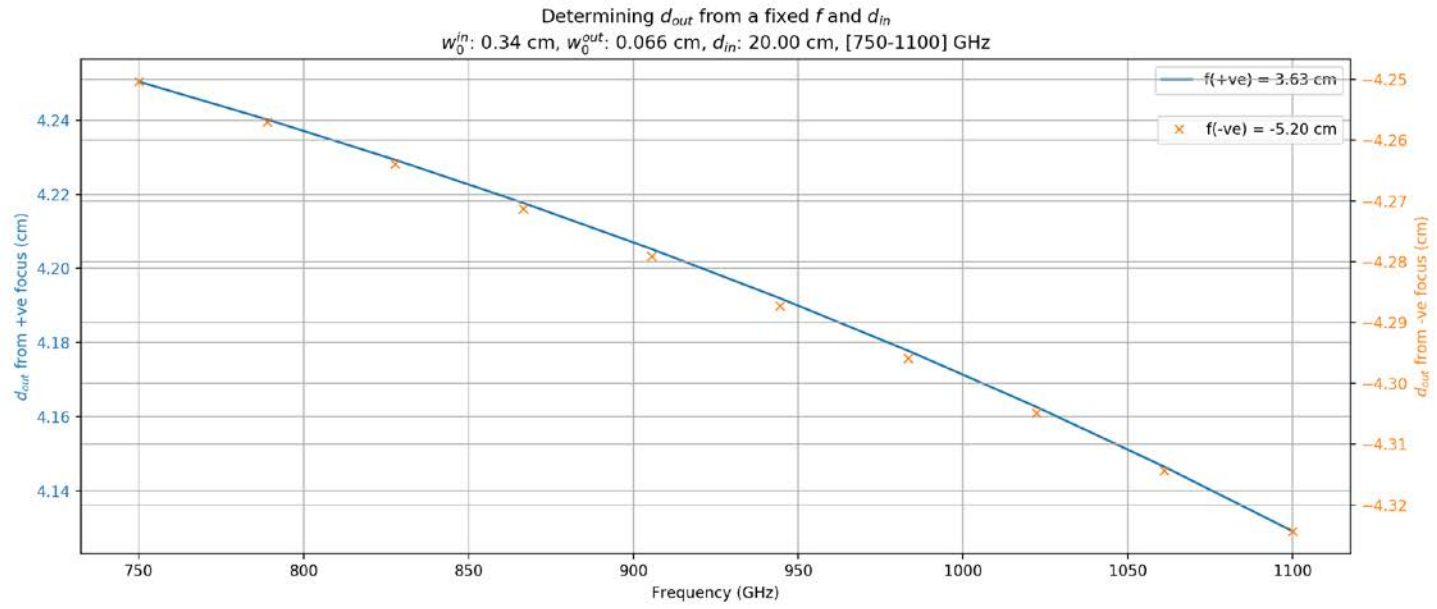

THz source to Mirror
Mirror to inside Trap ($d_{in}$=20.0cm)
325.0
368.75
412.5
456.25
500.0
500.0
562.5
625.0
687.5
750.0
750.0
837.5
925.0
1012.5
1100.0
$f_+$ = 6.29cm
$f_-$ = -15.96cm
0.066
0.099
0.15
$w_0$:0.34
w(z)-Beam Radius (cm)
$d_{out}$ (cm)
$d_{in}$ (cm)


THz source to Mirror
Mirror to inside Trap ($d_{in}$=20.0cm)
325.0
368.75
412.5
456.25
500.0
500.0
562.5
625.0
687.5
750.0
750.0
837.5
925.0
1012.5
1100.0
$f_+$ = 4.77cm
$f_-$ = -8.48cm
0.066
0.099
0.15
$w_0$:0.34
w(z)-Beam Radius (cm)
$d_{out}$ (cm)
$d_{in}$ (cm)

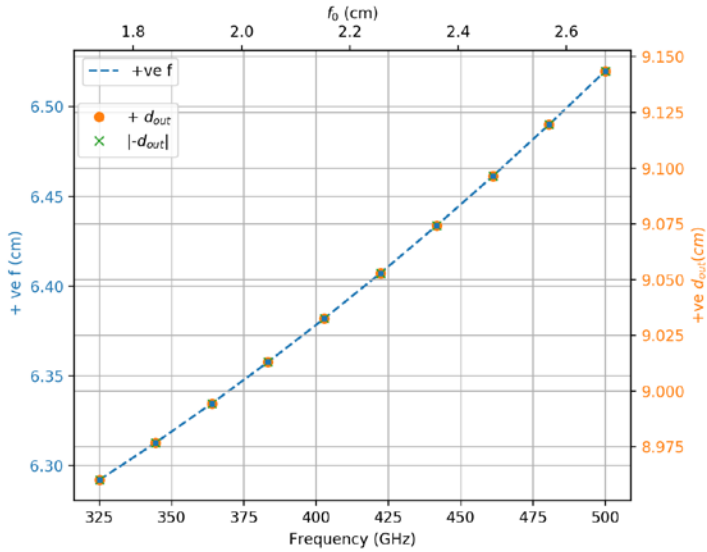

THz source to Mirror
Mirror to inside Trap ($d_{in}$=20.0cm)
325.0
368.75
412.5
456.25
500.0
500.0
562.5
625.0
687.5
750.0
750.0
837.5
925.0
1012.5
1100.0
$f_+$ = 3.63cm
$f_-$ = -5.20cm
0.066
0.099
0.15
$w_0$:0.34
w(z)-Beam Radius (cm)
$d_{out}$ (cm)
$d_{in}$ (cm)

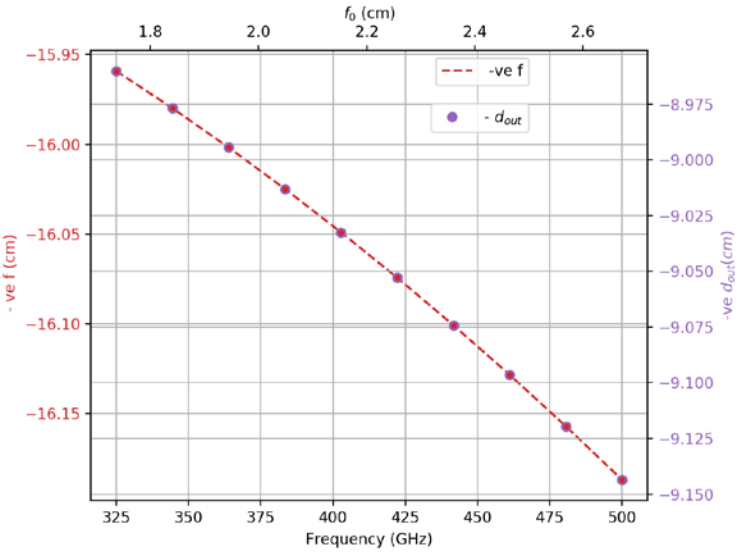

Determining $d_{out}$ from a fixed $f$ and $d_{in}$
$w_0^{in}$: 0.34 cm, $w_0^{out}$: 0.150 cm, $d_{in}$: 20.00 cm, [325-500] GHz
f(+ve) = 6.29 cm
f(-ve) = -15.96 cm
$d_{out}$ from +ve focus (cm)
$d_{out}$ from -ve focus (cm)
Frequency (GHz)


Determining $d_{out}$ from a fixed $f$ and $d_{in}$
$w_0^{in}$: 0.34 cm, $w_0^{out}$: 0.099 cm, $d_{in}$: 20.00 cm, [500-750] GHz
f(+ve) = 4.77 cm
f(-ve) = -8.48 cm
$d_{out}$ from +ve focus (cm)
$d_{out}$ from -ve focus (cm)
Frequency (GHz)

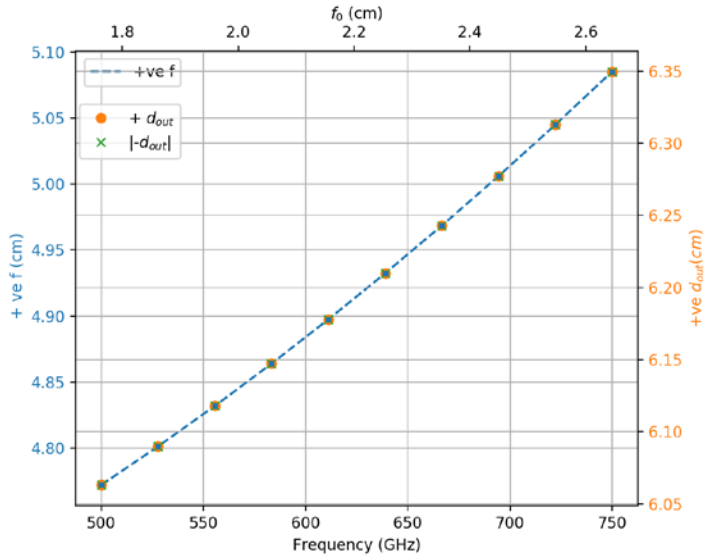

Determining $d_{out}$ from a fixed $f$ and $d_{in}$
$w_0^{in}$: 0.34 cm, $w_0^{out}$: 0.066 cm, $d_{in}$: 20.00 cm, [750-1100] GHz
f(+ve) = 3.63 cm
f(-ve) = -5.20 cm
$d_{out}$ from +ve focus (cm)
$d_{out}$ from -ve focus (cm)
Frequency (GHz)

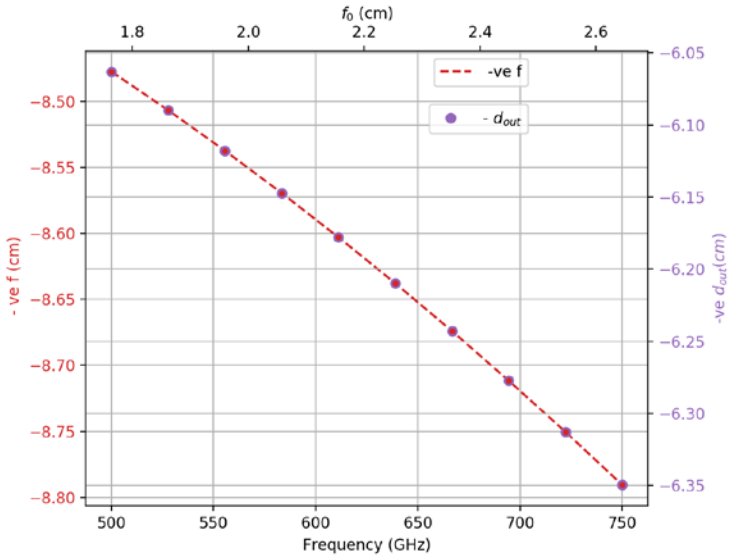
Determining focal length (f) from given M and $d_{in}$ then calculating $d_{out}$
$w_0^{in}$: 0.34 cm, $w_0^{out}$: 0.150 cm, $d_{in}$: 20.00 cm; [325-500] GHz




Determining focal length (f) from given M and $d_{in}$ then calculating $d_{out}$
$w_0^{in}$: 0.34 cm, $w_0^{out}$: 0.099 cm, $d_{in}$: 20.00 cm; [500-750] GHz




Determining focal length (f) from given M and $d_{in}$ then calculating $d_{out}$
$w_0^{in}$: 0.34 cm, $w_0^{out}$: 0.066 cm, $d_{in}$: 20.00 cm; [750-1100] GHz