

LT-GaAs PCA

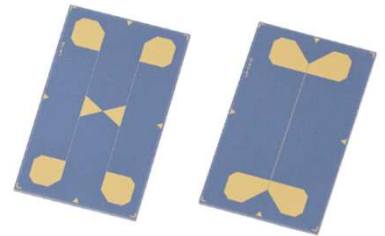
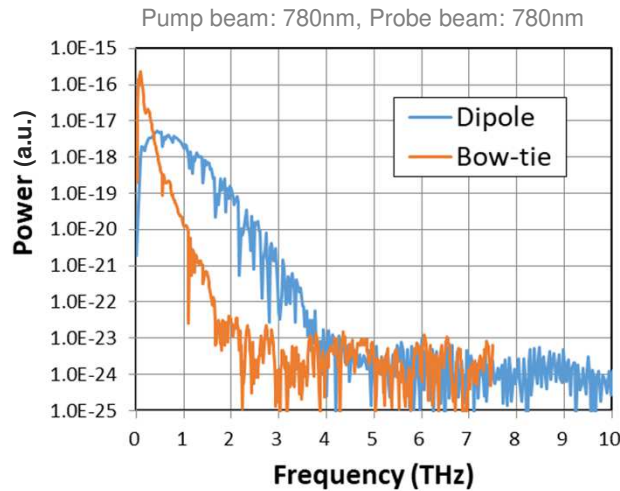
Specifications

Emitter

Bias	~20Vpp (Dipole, Bowtie)
Pump Power	~20mW@780nm ~30mW@1560nm

Detector

Carrier Lifetime	~0.5ps
Probe Power	~20mW@780nm ~30mW@1560nm



chip size : 6mm x 10mm

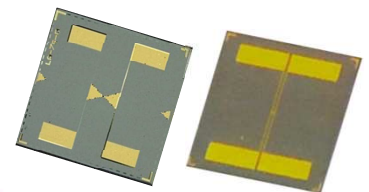
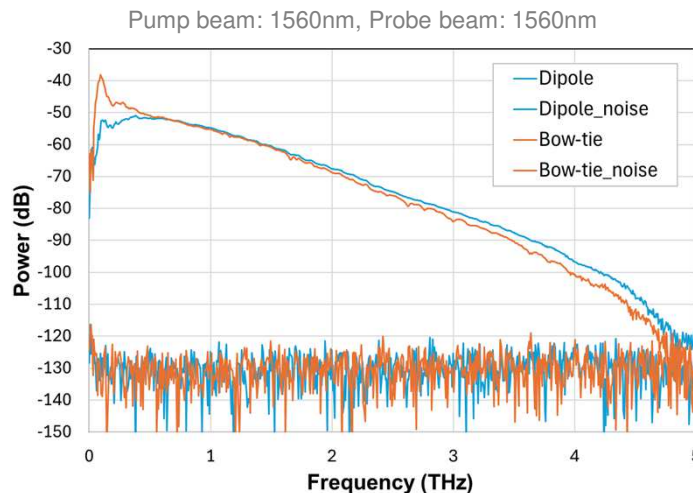
Fe doped InGaAs PCA

Specifications

Emitter : InGaAs PCA

Detector : LT-GaAs PCA

Bias	~40Vpp (Dipole, Bow-tie)
Pump Power	~20mW
Dynamic Range	Dipole : 80dB Bow-tie : 90dB



chip size : 4mm x 4mm

Epitaxial Wafer Grown by MBE

LT-GaAs Wafer

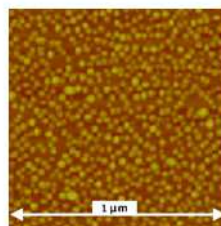
Carrier Lifetime	< 0.5ps
Resistivity	> 10 ⁵ Ωcm
Diameter	2 inch
Thickness	350μm

InGaAs Wafer

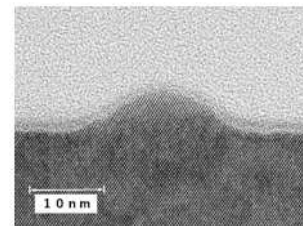
Diameter	2 inch
Thickness	350μm

Quantum Dot Wafer

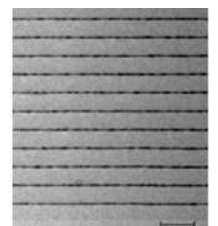
Diameter	2 inch
Material	Ga, In, Al, As, Sb, Si(n), Be(p)



Quantum Dot surface(AFM)



Quantum Dot (TEM)



Quantum Dot layer(TEM)