

RF Microneedle Arrays: Thermal Results

D. van der Weide
July 26, 2023



SERENDIA-00082842

CX-2936C.1

Experimental Setup

2 MHz (460 kHz for LUTRONIC)

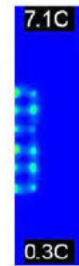
120 ms pulse

Skin phantom: White Turkey (Oscar Mayer Lean White Turkey) 2% Fat

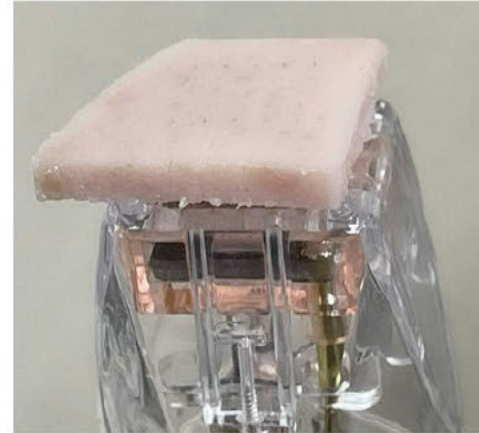
1 layer phantom pushed into tips (top flush with tips as seen in sample configuration)

Key: Peak temperature above; base temperature below

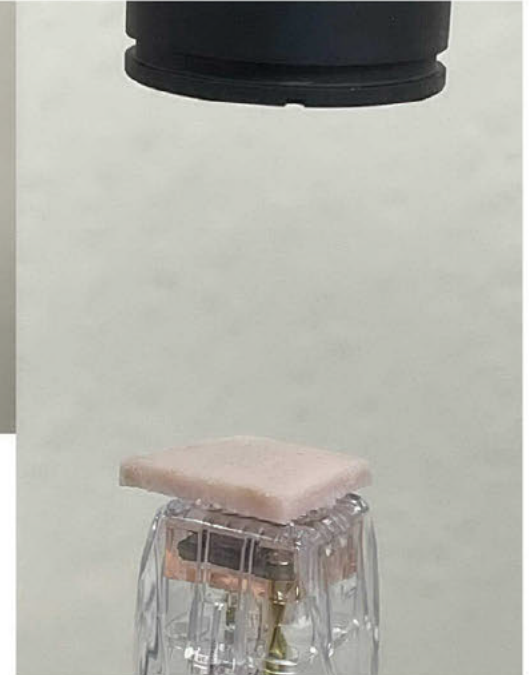
Snapshot time: 133.3E-3S



Sample configuration



Lens above sample



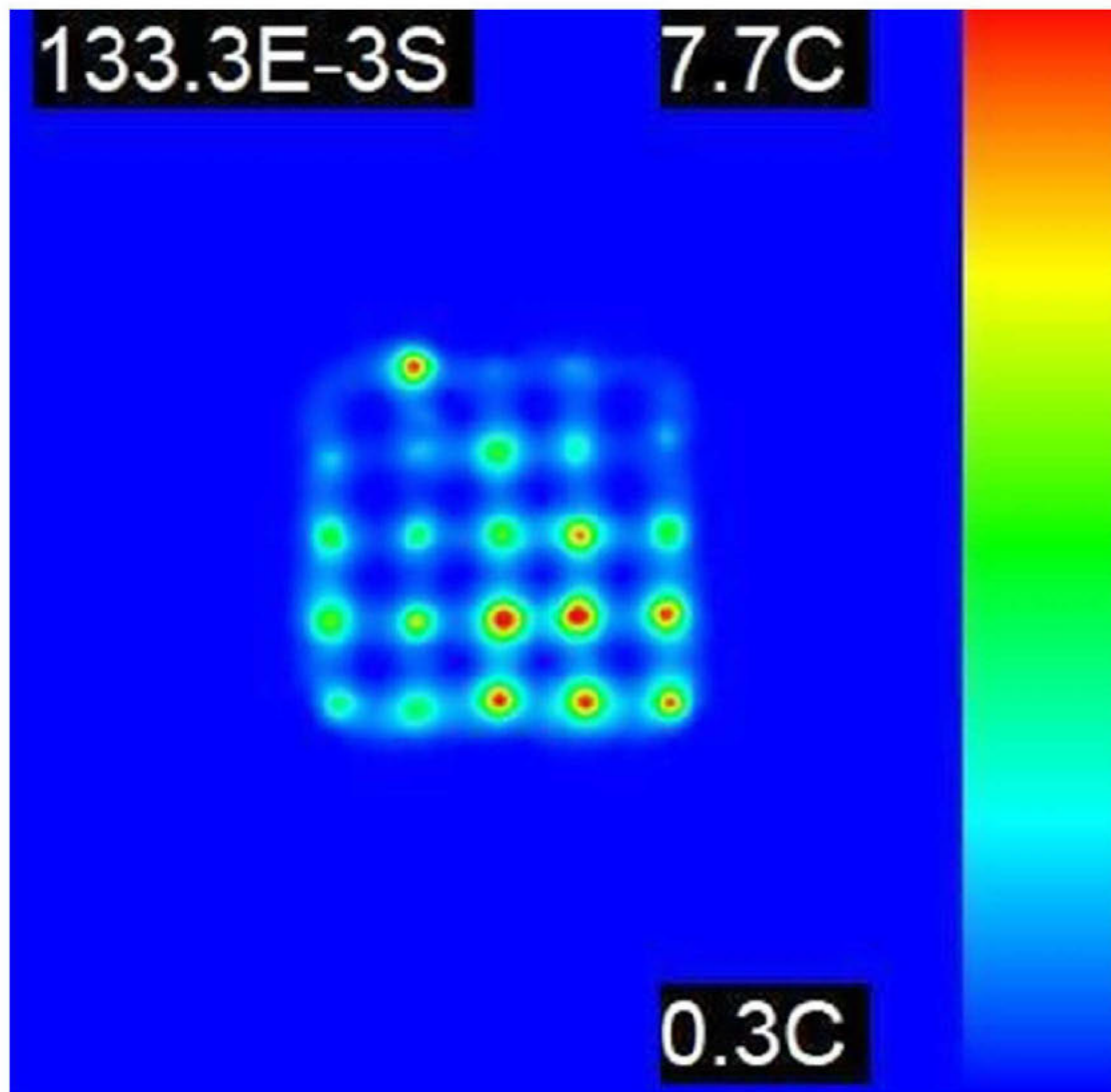
Gallery of probes



SERENDIA-00082844

Ex. 2087-003

CX-2936C.3



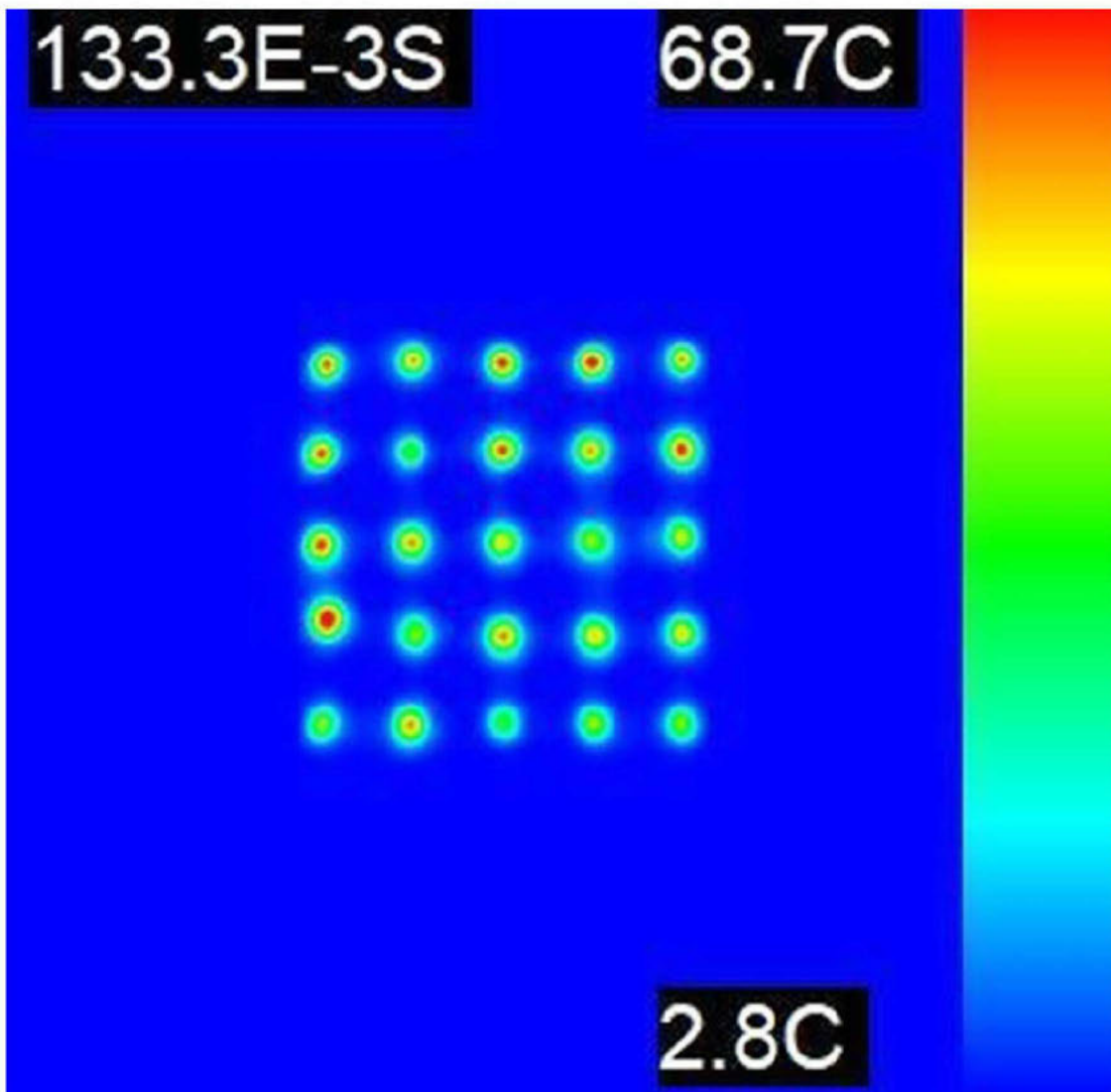
BENEV 2 MHz -11 dBm
120 ms



SERENDIA-00082845

Ex. 2087-004

CX-2936C.4

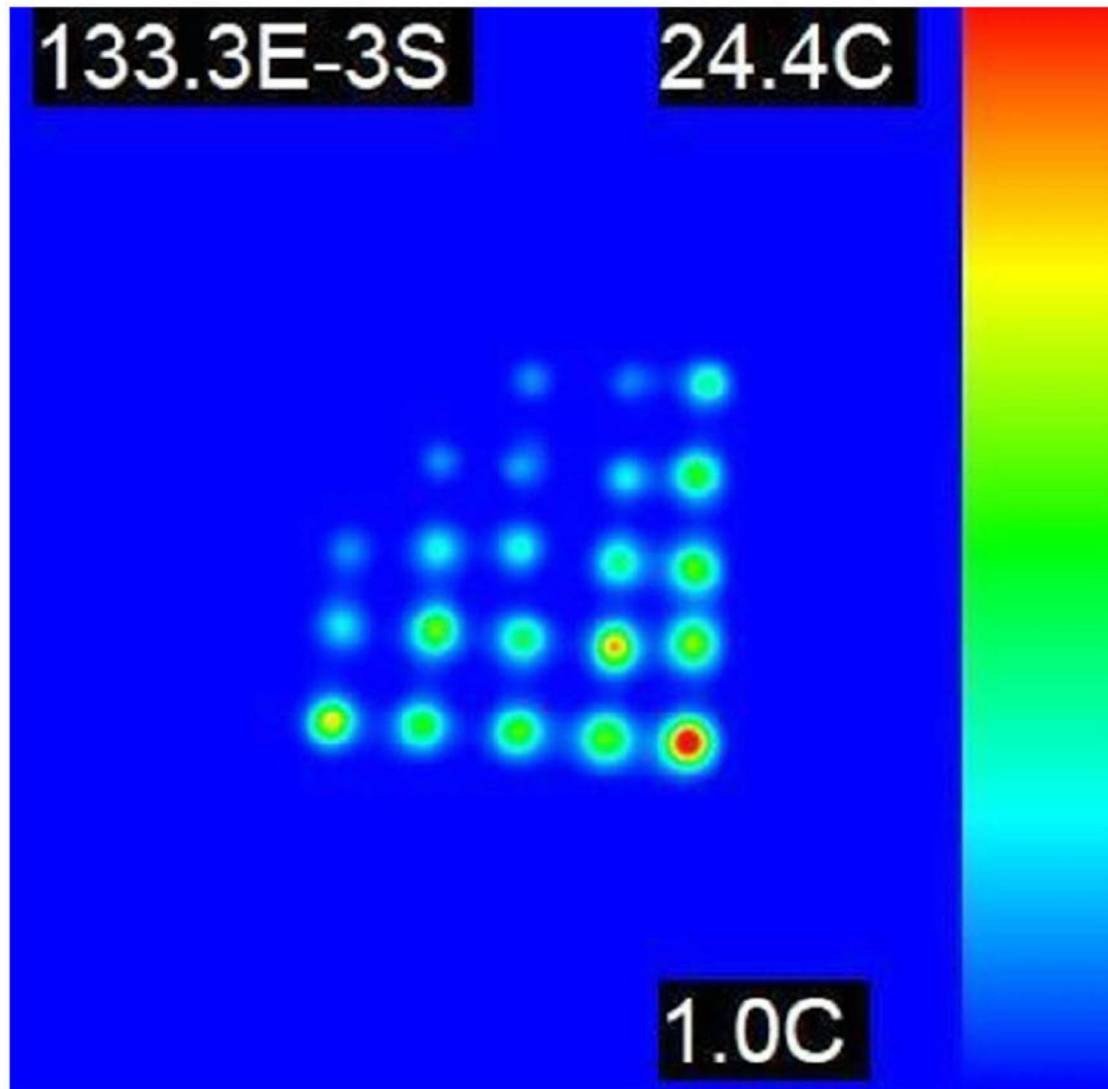


ENDYMED 2 MHz -17 dBm
120 ms

SERENDIA-00082846

Ex. 2087-005

CX-2936C.5



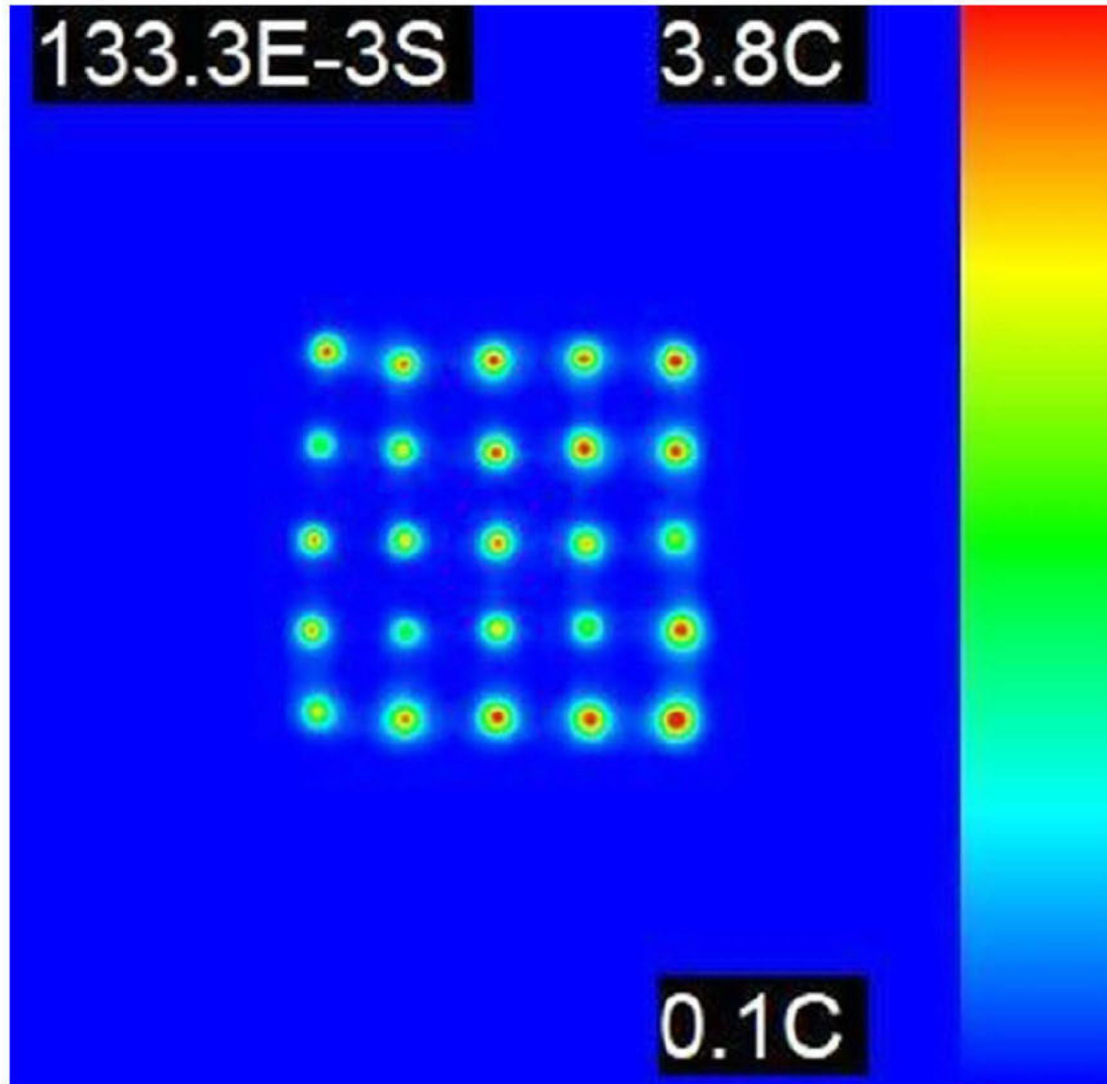
ILOODA 2 MHz -11 dBm
120 ms



SERENDIA-00082847

Ex. 2087-006

CX-2936C.6



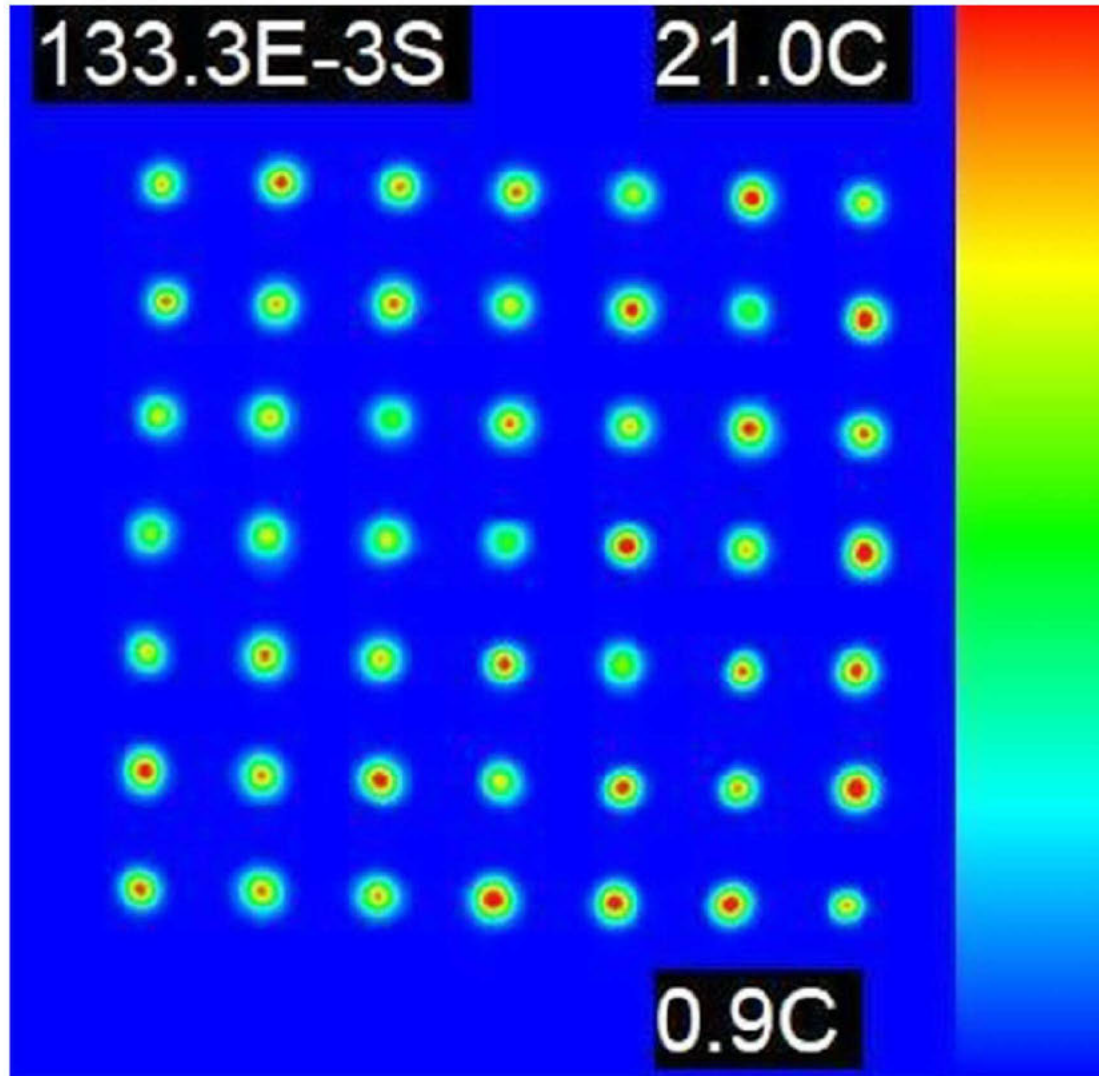
JEISYS 2 MHz -23 dBm
120 ms



SERENDIA-00082848

Ex. 2087-007

CX-2936C.7



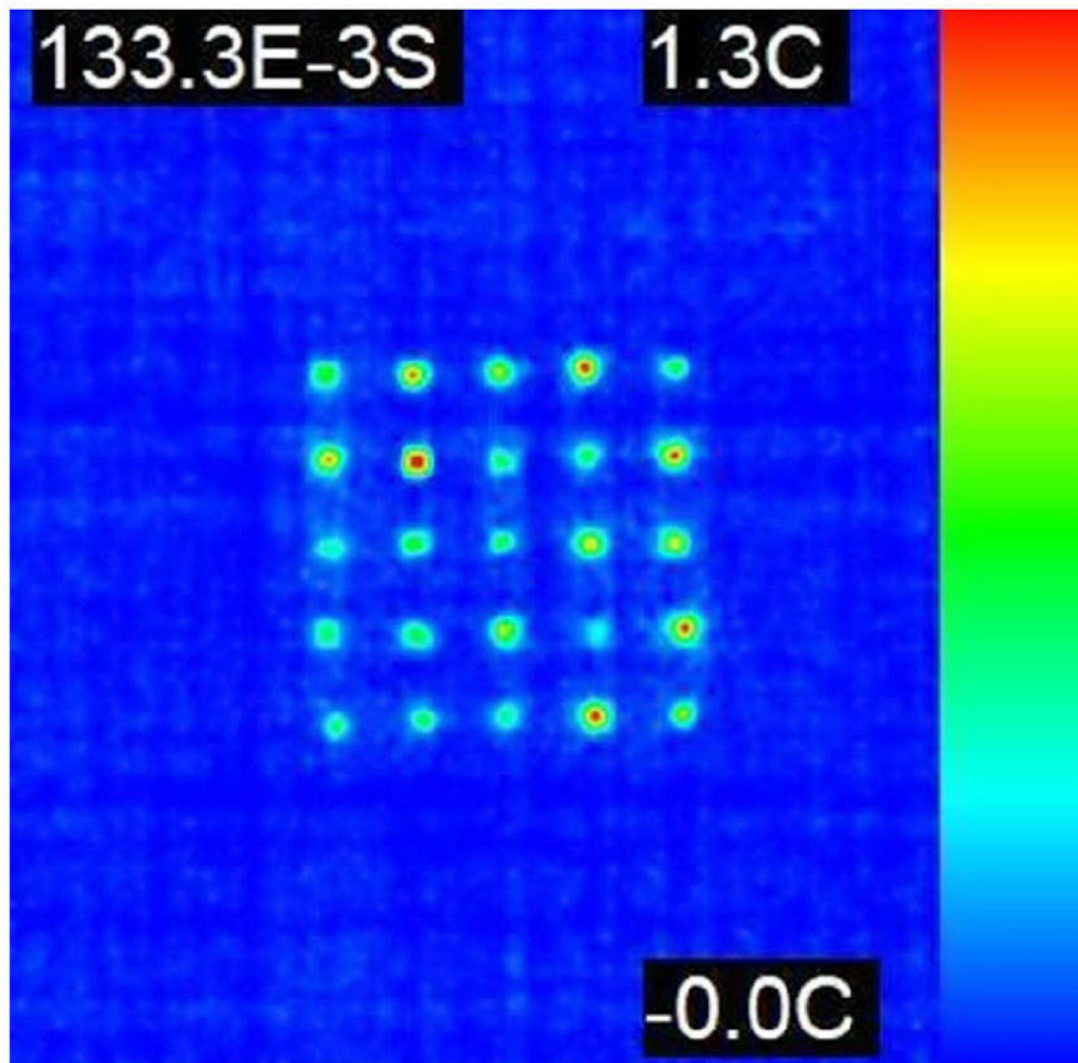
LUTRONIC 460 kHz -17 dBm
120 ms



SERENDIA-00082849

Ex. 2087-008

CX-2936C.8



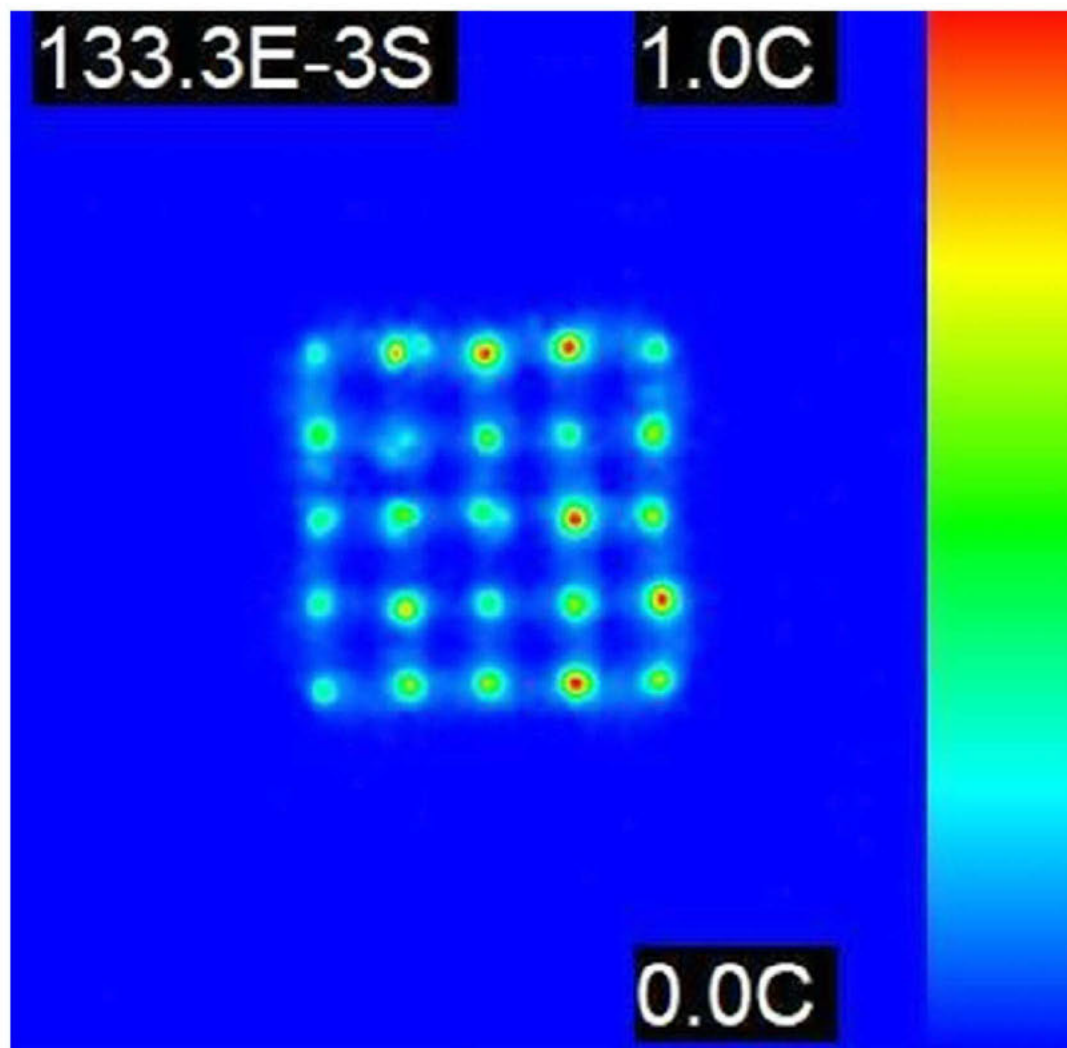
ROHRER 2 MHz -23 dBm
120 ms



SERENDIA-00082850

Ex. 2087-009

CX-2936C.9



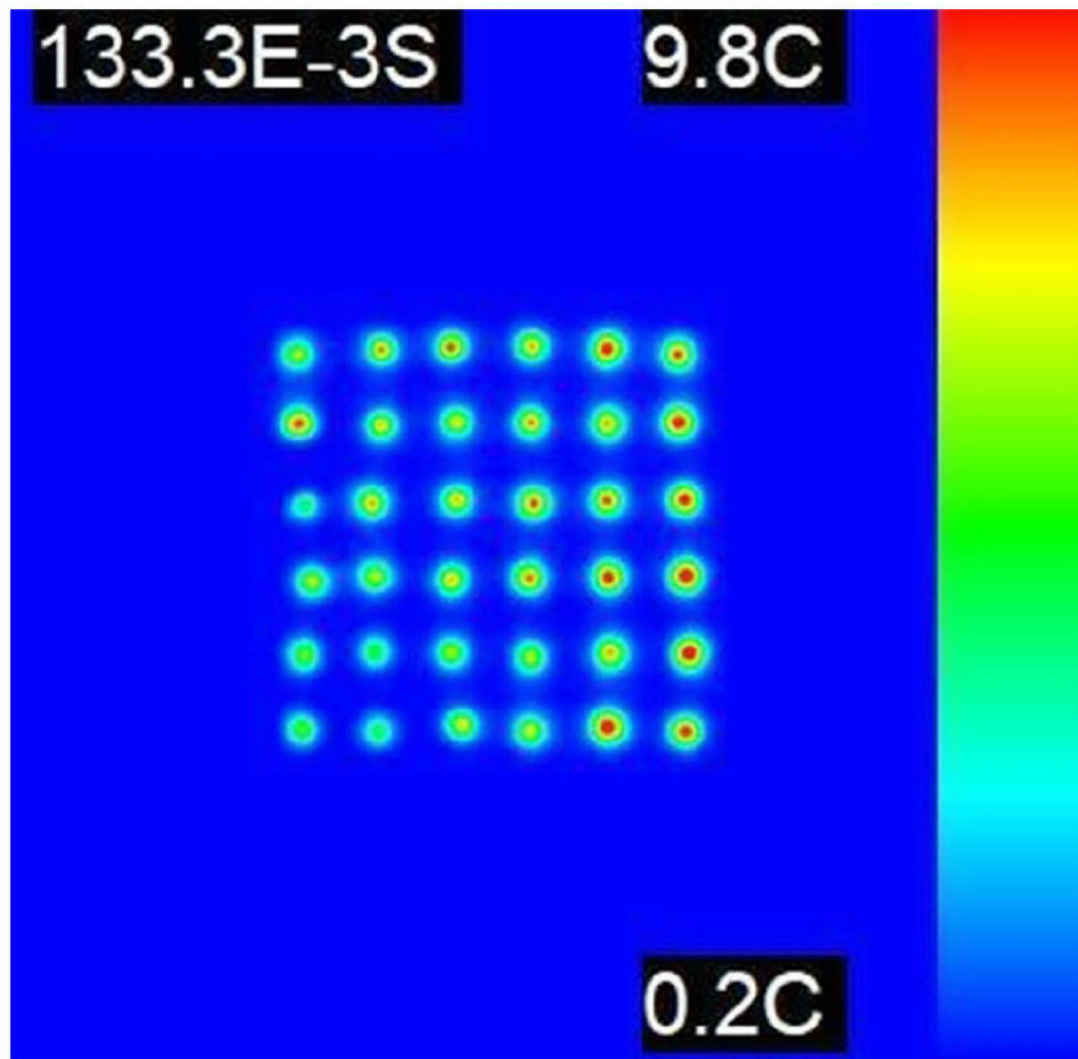
VIRTUE 2 MHz -17 dBm
120 ms



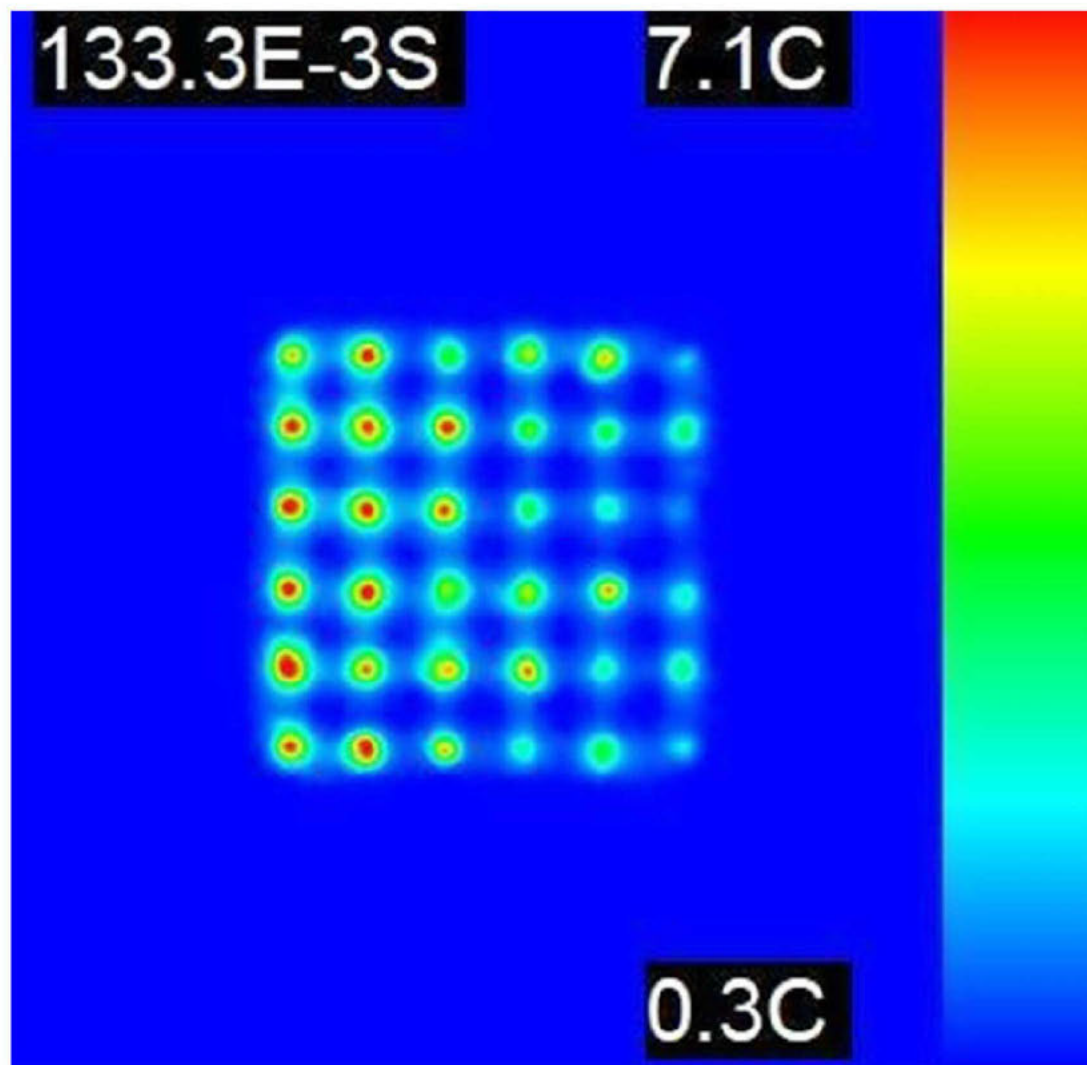
SERENDIA-00082851

Ex. 2087-010

CX-2936C.10



VIVACE 2 MHz -23 dBm
120 ms



VIVACE ULTRA 2 MHz -11 dBm
120 ms

SERENDIA-00082853

Ex. 2087-012

CX-2936C.12