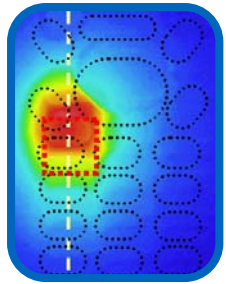
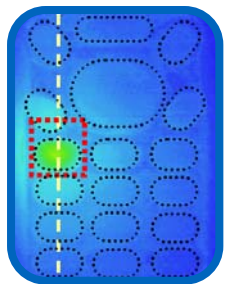


WIRELESS HANDSETS

THERMAL SOLUTIONS FOR TELECOM



WITHOUT SPREADERSHIELD



WITH SPREADERSHIELD
400 W/m-K

REDUCED KEYPAD SURFACE TEMP BY 8°C!

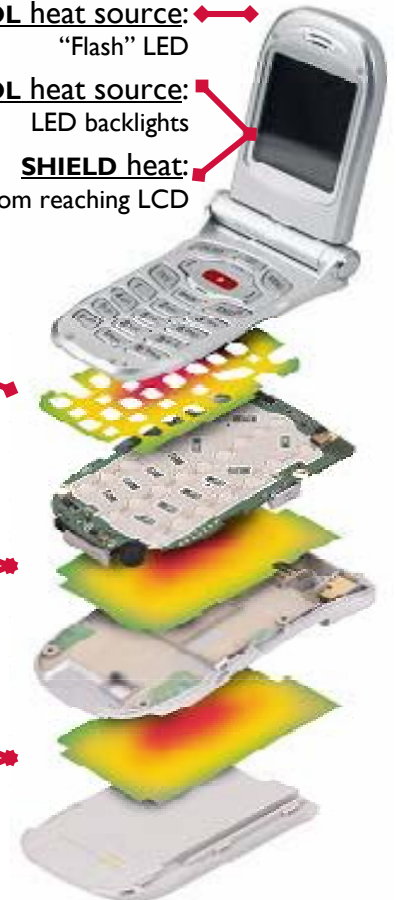
High thermal conductivity **SPREADERSHIELD™** (300-500 W/m-K) heat spreaders enable compact thermal designs that outperform current cooling methods for handheld devices.

- Reduce touch temperature and hot spots
- Increase LED brightness and performance
- Increase battery life and reliability
- Reduce product weight

COOL heat source: "Flash" LED

COOL heat source: LED backlights

SHIELD heat: From reaching LCD



SHIELD heat: From reaching user through keypad (with **SPREADERSHIELD** on top-side)

SHIELD heat: From reaching user through keypad (with **SPREADERSHIELD** on bottom-side)

COOL heat source: Power amplifiers (PAs) and tuners (on bottom-side of main PCB within EMI shield)

SHIELD heat: From reaching Li-ion battery and causing premature cell failure

SHIELD heat: From reaching user through battery cover

SAMPLE CONFIGURATIONS



SPREADERSHIELD integrated directly into polymeric keypad



SPREADERSHIELD integrated directly with dome switch sheet



SPREADERSHIELD integrated with diffuse white LED reflector



Custom die-cut parts available in continuous rolls for high-volume

Email us at egraf@graftech.com to request a sample today!