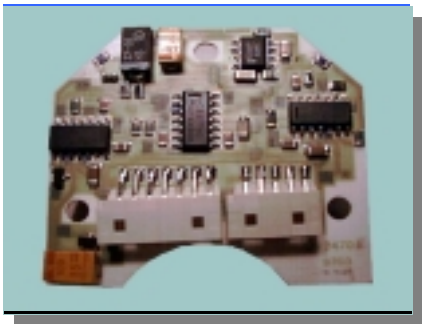
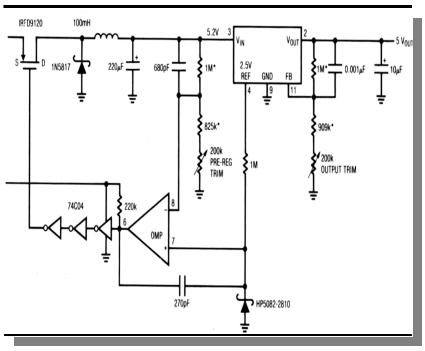
HYBRID CIRCUITS
THICK FILM

- **A better design :**
  - Specific application
  - Sizes reduction



- **Laser trimming :**
  - Tight tolerances
  - Accurate resistors
  - Functional trim



- **Miniaturisation :**
  - High density circuits
  - Accurate printings

- **Cost savings :**
  - One global partner
  - Easy set up
  - Industrial cost

- **Reliability :**
  - Temperature stability
  - Integration

- **Quality :**
  - Statistical analysis
  - 100% electric test

HiDENSITY group

GENERAL HYBRID
23, Avenue du Général Leclerc
92340 Bourg la Reine France
Tel 33 1 45 47 60 06
Fax 33 1 46 64 74 10
Email mailbox@generalhybrid.com
http://www.generalhybrid.com

AFAQ ISO 9001
AFAQ N°1998/9093

GENERAL HYBRID

HYBRID CIRCUITS THICK FILM

TECHNICAL DATA

Substrate

96% Alumina
Maximum size 4" x 4"
Thickness 0,635 mm or 1 mm
Dissipation 0,31 W/cm^2 at 70 °C
Can be tooled to suit application
Laser drilling

Conductors

Standard Silver Palladium or Gold
Glass dielectric crossovers
Track width 200 µm
Track spacing 200 µm
Plated through holes

Thick film resistors

Range of values 1Ω to 500MΩ
Standard tolerance ± 0,5%
Matching to ± 0,1%
Dissipation 7,75 W/cm^2 at 70 °C
Absolute TCR ± 100 ppm/°C
Differential TCR ± 20 ppm/°C
Laser trimming

Possible thin film technology

99,9% Alumina substrate
Differential tolerance < 0,1%
Differential TCR ± 5 ppm/°C
Metals TaN NiCr
Evaporation sputtering
Range according to application

Passivation

Low temperature overglaze

Add-on components

Traditional and fine pitch SMD
Chip and wire
Reflow soldering
Both sides components

Leads

Package SIL DIL or SMD
Pitch 2,54 or 1,27 mm
Length standard 3,5mm-max 9mm
Tinned leads

Coating

Epoxy powder coating
Plastic housing

Identification

Reference logo date–code pin 1
Marking upon request