

# Electrical properties of Cu/Polyimide/CCbridge hybrid

Capacitances: (measurement error  $\pm 0.5$  pF)

|                       | to GND with/without neighbor GNDed | between pair |
|-----------------------|------------------------------------|--------------|
| Command line          | 38.7 pF                            | 14.4 pF      |
| Data/token long line  | 31.5 pF                            | 9.8 pF       |
| Data/token short line | 2.8 pF                             | 0.4 pF       |
| metalized bridges     | Without                            | With         |
| Vcc-AGND              | 1.24 nF                            | 1.93 nF      |
| Vdd-DGND              | 0.94 nF                            | 0.88 nF      |

Resistances: [ $\text{m}\Omega$ ]: (measurement error  $\pm 1$   $\text{m}\Omega$ )

|                          | Total | Pins    | Pigtail | Hybrid#1 | Wrap-round | Hybrid#2 |
|--------------------------|-------|---------|---------|----------|------------|----------|
| AGND                     | 40    | 8/3 = 3 | 11      | 10       | 6          | 10       |
| - with metalized bridges | 36    |         |         | 8        |            | 8        |
| - with polymer bridges   | 38    |         |         | 9        |            | 9        |
| DGND                     | 59    | 8/4 = 2 | 11      | 20       | 6          | 20       |
| Vcc                      | 61    | 8/2 = 4 | 11      | 20       | 6          | 20       |
| Vdd                      | 61    | 8/2 = 4 | 11      | 20       | 6          | 20       |