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|---------------------------------------|---------------------|--|--|--|
| Job number: 79796 | Material: PCL-370HR | Stackup Report Report v1.38 Internal | G O R I L L A C I R C U I T S I N C. |  |
| Part number: ADC08060/ADC08100/ADC082 | Impedance: Yes | | | |
| Customer: TEXAS INSTRUMENTS | Date: 05-May-2017 | | | |
| Panel size: 18X24 | Created by: MELANIE | | | |

| Layer | Type | Cu Weight | Cu % | Material Description | Via Structure | Segment | Glass Style | Material Family | Dielectric constant | Copper Plating Thickness [mil] | Thickness after lamination [mil] |
|------------|-----------------|-----------|------|----------------------|---------------|---------|-------------|-----------------|---------------------|--------------------------------|----------------------------------|
| Soldermask | | | | | | | | | | | 0.80 |
| I1comp | Signal | H | 63 | Press thk = 4.40 mil | | Foil | | | | | 2.00 * |
| | | | | | | Prepreg | 106(75) | PCL-370HR | 3.90 | 1.40 | 4.40 |
| | | | | | | | 106(75) | PCL-370HR | 3.90 | | |
| I2pp | Plane | H | 100 | 21.0 mil H/- | | Core | | PCL-370HR | 3.90 | | 0.60 |
| | Blank / Targets | | | Press thk = 4.40 mil | | Prepreg | 106(75) | PCL-370HR | 3.90 | | 21.00 |
| | | | | | | | 106(75) | PCL-370HR | 3.90 | | 4.40 |
| | | | | | | Core | | PCL-370HR | 3.90 | | 21.00 |
| I3pp | Blank / Targets | H | 100 | 21.0 mil -/H | | | | PCL-370HR | 3.90 | | 0.60 |
| | Plane | | | Press thk = 4.40 mil | | Prepreg | 106(75) | PCL-370HR | 3.90 | | 4.40 |
| | | | | | | | 106(75) | PCL-370HR | 3.90 | | |
| I4sold | Signal | H | 65 | | | Foil | | | | 1.40 | 2.00 * |
| Soldermask | | | | | | | | | | | 0.80 |

* Estimated Cu Plating for reference use only.

| | |
|--|-----------|
| Specification (Over mask on plated copper::) | mil |
| Overall Board Thickness: | 62.00 |
| Tolerance: | +6.2/-6.2 |
| Min-Max Board Thickness: | 55.8-68.2 |

| | |
|------------------------------|-------|
| Anticipated Board Thickness: | mil |
| After lamination: | 57.60 |
| Over mask on plated copper:: | 62.00 |

Impedance Table

| Layer | Impedance Requirement [ohms] | Tolerance [ohms] | | Type | Upper Ref | Lower Ref | Designed Line Width [mil] | Plotted Line Width [mil] | Designed Spacing [mil] | Coplanar Spacing [mil] | Finished Line Width [mil] | Finished Spacing [mil] | Impedance Simulation [ohms] |
|--------|------------------------------|------------------|-----|----------------------|-----------|-----------|---------------------------|--------------------------|------------------------|------------------------|---------------------------|------------------------|-----------------------------|
| | | + | - | | | | | | | | | | |
| I1comp | 50 | 5.0 | 5.0 | Coated SE CoPlaner | -- | I2pp | 7.25 | 7.25 | -- | 15.00 | 6.75 | -- | 50.0 |
| I1comp | 50 | 5.0 | 5.0 | Coated microstrip SE | -- | I2pp | 7.25 | 7.25 | -- | -- | 6.75 | -- | 50.3 |

| Mat Typ | Material Description | Rsn% | PNL | 1 Pnl | Notes |
|---------|--------------------------|------|-------|-------|-------|
| Foil | Foil - 0.5 oz - Foil | | 18x24 | 2 | |
| Core | PCL-370HR - 21.0 mil H/H | | 18x24 | 2 | |
| Prepreg | PCL-370HR - 106 | 75% | 18x24 | 6 | |

| Drill Progs | Technology | Depth |
|-------------|------------|-------|
| drill | Mechanical | 57.60 |

Please Note:

IPC-6012 has a minimum dielectric requirement of 0.003543" and any targeted dielectric thickness of 0.0045" or less may violate this requirement.

Acceptance of this proposed stack-up will be taken as a waiver for this requirement. Note that with this exception, the minimum dielectric thickness shall be 0.000984". If this is not acceptable please get back to us ASAP so we can make the necessary changes.

If we do not hear back from you within 24 hours, we will proceed with this stack-up. Note that the granting of this waiver does not affect the product meeting IPC-6012 Class 2 or Class 3 requirements. Also note that targeted thickness .0046" and greater shall have a minimum tolerance of +/- .001 after lamination.