
Attaching Flex 2.x to Dummy Modules and Wire Bonding

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Witharm

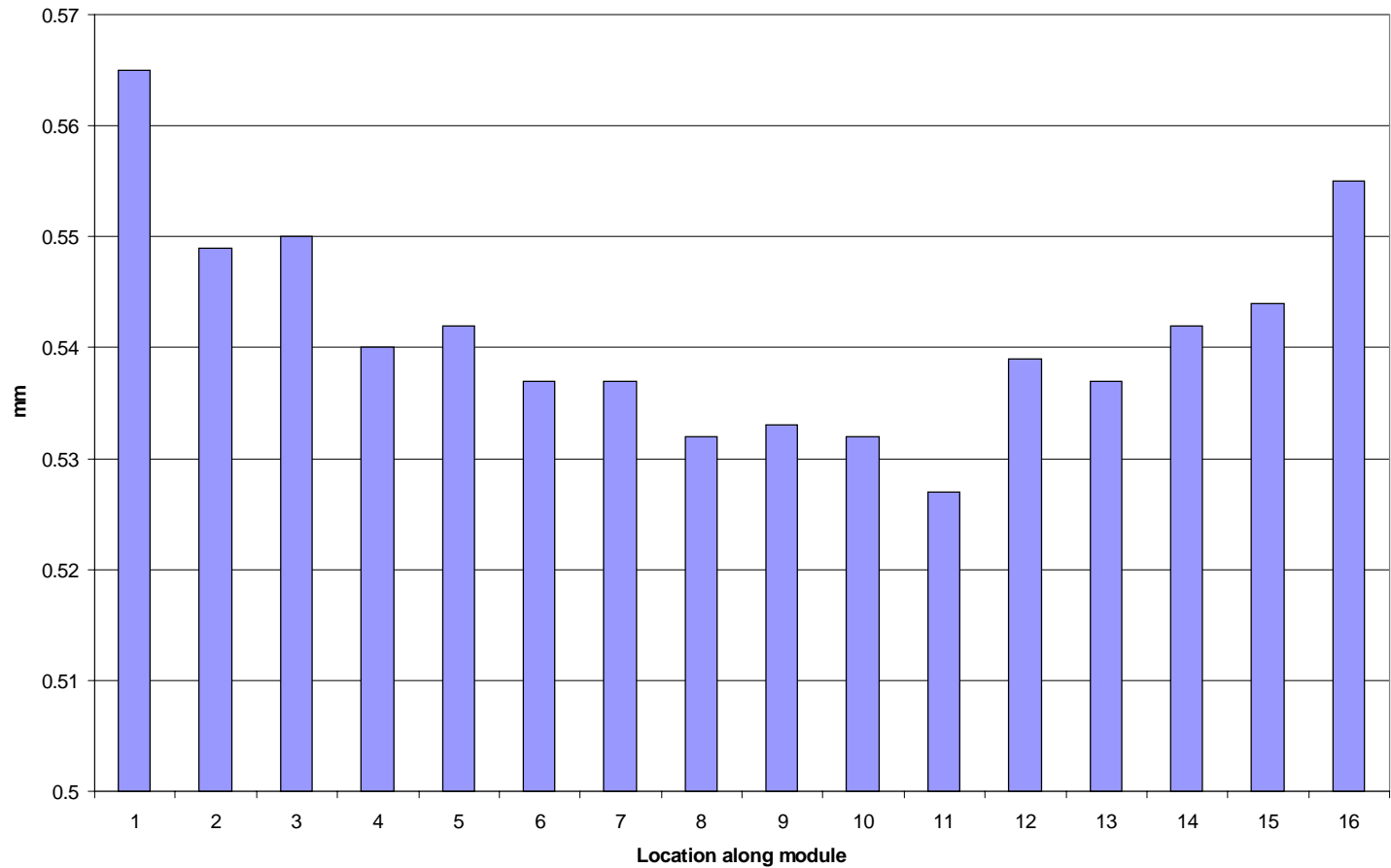
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Status

- Dummy modules
 - Two received from IZM
 - Bow of module measured(20-30 microns) and planarity of chip(<10 microns).
- Wirebonding
 - Flex2.x was first tested with few bonds held down with vacuum chuck - appeared OK.
 - Flex 2.x was glued to dummy module using tooling described before, with glue line under bond pads.
 - Bond pull strengths highly variable. Attempted to correlate with local position measurements(wrinkles) - not conclusive.

Strength	Chip #							
(gms)	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
Average	6.1	3.9	5.2	4.5	3.4	4.9	3.7	3.5
Low	1	2	2	3	1	1	2	1
High	9	6	7	7	5	7	5	5
# not stick	0	1	0	1	0	2	1	2
(gms)	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>
Average	5.7	4.7	5.6	6	4.8	5.6	4.9	5.7
Low	3	3	4	4	2	4	2	4
High	8	9	6	8	7	7	6	7
# not stick	0	0	0	0	0	0	0	0

Bow of IZM Dummy Module



More Wire Bonding

- Also tried bonding with flex glued to silicon in same way but using chips glued to silicon - dummy-dummy modules.
- This has also given variable results.
- But tests done on “bad” flex that were claimed to be OK except for electrical connectivity problems. However, it appears there is Au adhesion problem with these.
- Is this the cause of variability in flex on dummy module(it was good flex)?
- Don't know yet.
- Are making more dummy-dummy modules and will glue (good) flex and repeat.

