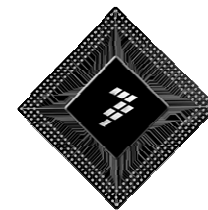


# STDF Bitmap Data Requirements/Proposals

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## Bitmap Fields Available in STDF v4

- Device – MIR
- Lot ID – MIR
- Wafer ID – WRR
- Wafer Coordinate Translation – WCR
- Die X – PRR
- Die Y – PRR
- Insert – MIR
- Head – PIR/PRR
- Site – PIR/PRR

## Newly Required Bitmap Fields in STDF

- Memory/Array ID – covered by present FFSP
- Failing Test Info – covered by present FFSP
- Failing Address, Test Results – covered by present FFSP
- Memory Dimensions – ?, required to construct logical map

# Proposal for Bitmap Data in STDF

- Additional options of address count or bit stream data – for data flexibility or to maintain file size for high failure address counts:

| Category       | Field     | Comments   |
|----------------|-----------|--|
| Failed Address | Data Type | 0 = detailed, 1 = count, 2 = raw bit stream, 3 = compressed bit stream, specified by adding 2 bits to 16 bit field |

**Detailed: (current FFSP proposal)**

|                 |  |
|-----------------|--|
| Logical Address |  |
| Pin, Cycle no   |  |

:

**Count:**

|                     |          |
|---------------------|----------|
| # failing addresses | long int |
|---------------------|----------|

**Raw Bit Stream:**

|                   |                           |
|-------------------|---------------------------|
| # bytes in stream | long int                  |
| array width       | long int                  |
| raw bit stream    | zero padding if necessary |

**Compressed Bit Stream:**

|                       |                  |
|-----------------------|------------------|
| # bytes in stream     | long int         |
| array width           | long int         |
| compressed bit stream | zlib compression |

# Proposal for Bitmap Data in STDF

- 4 Types of data – either extension of current frame, or additional record types:

| Detailed:                  | Count:        | Bit Stream:       | Compressed Bit Stream: |
|----------------------------|---------------|-------------------|------------------------|
| Controller                 | Controller    | Controller        | Controller             |
| Memory                     | Memory        | Memory            | Memory                 |
| Port                       | Port          | Port              | Port                   |
| Algorithm                  | Algorithm     | Algorithm         | Algorithm              |
| March Element              | March Element | March Element     | March Element          |
| March Step                 | March Step    | March Step        | March Step             |
| Logical Address            | Count         | # Bytes in stream | # Bytes in stream      |
| Pin, Cycle No.             |               | Array Width       | Array Width            |
| Write Port ID              |               | Raw bit stream    | Compressed bit stream  |
| Write Port Logical Address |               |                   |                        |
| Expected                   |               |                   |                        |
| Measured                   |               |                   |                        |
| Failed                     |               |                   |                        |
| Optional Data              |               |                   |                        |