

JSON Message Definitions

Raw Configuration:

<example>

```
{
  "raw": {
    "stream": "enable"
  }
}
```

<schema>

```
{
  "$schema": "http://json-schema.org/draft-04/schema#",
  "type": "object",
  "properties": {
    "raw": {
      "type": "object",
      "properties": {
        "stream": {
          "type": "string",
          "enum": [
            "disable",
            "enable"
          ],
          "description": "Enables or Disables Raw Data Streaming"
          "default": "disable"
        }
      },
      "required": [
        "stream"
      ]
    }
  },
  "required": [
    "raw"
  ]
}
```

IMU Configuration:

<example>

```
{
  "imu": {
    "accelerometer": "disable",
    "gyroscope": "enable",
    "magnetometer": "disable",
    "temperature": "disable"
  }
}
```

<schema>

```
{
  "$schema": "http://json-schema.org/draft-04/schema#",
  "type": "object",
  "properties": {
    "imu": {
      "type": "object",
      "properties": {
        "accelerometer": {
          "type": "string",
          "enum": [
            "enable",
            "disable"
          ],
          "description": "Enables or disables logging of accelerometer data",
          "default": "disable"
        },
        "gyroscope": {
          "type": "string",
          "enum": [
            "disable",
            "enable"
          ],
          "default": "disable",
          "description": "Enables or disables logging of gyroscope data"
        },
        "magnetometer": {
          "type": "string",
          "enum": [
            "enable",
            "disable"
          ],
          "description": "Enables or disables logging of magnetometer data",
          "default": "disable"
        },
        "temperature": {
          "type": "string",
          "enum": [
            "enable",
            "disable"
          ],
          "description": "Enables or disables logging of temperature data",
          "default": "disable"
        }
      },
      "required": [
        "accelerometer",
        "gyroscope",
        "magnetometer",
        "temperature"
      ]
    }
  }
}
```

```

    ]
  }
},
"required": [
  "imu"
]
}

```

Raw Data Stream:

<example>

```

{
  "raw": {
    "device": "TAS1D44140005",
    "timestamp": 1427113646,
    "acceleration": [
      {
        "x": 0.0003,
        "y": 1.0002,
        "z": 0.0001
      },
      {
        "x": 0.0001,
        "y": 0.0003,
        "z": 1.0001
      }
    ]
  }
}

```

<schema>

```

{
  "$schema": "http://json-schema.org/draft-04/schema#",
  "type": "object",
  "properties": {
    "rawdata": {
      "type": "object",
      "properties": {
        "timestamp": {
          "id": "http://jsonschema.net/rawdata/timestamp",
          "type": "integer",
          "description": "Unix timestamp"
        },
        "acceleration": {
          "type": "array",
          "items": [
            {
              "type": "object",
              "properties": {
                "x": {
                  "type": "number"
                }
              }
            }
          ]
        }
      }
    }
  }
}

```

```

        },
        "y": {
            "type": "number"
        },
        "z": {
            "type": "number"
        }
    }
},
],
"description": "Array of acceleration objects"
}
},
"required": [
    "timestamp",
    "acceleration"
]
}
},
"required": [
    "rawdata"
]
}
}

```

Enumeration Response:

<example> (reported as devices are found)

```

{
    "device": "TAS1D44140007"
}

```

<schema>

```

{
    "$schema": "http://json-schema.org/draft-04/schema#",
    "id": "http://jjsonschema.net",
    "type": "object",
    "properties": {
        "device": {
            "id": "http://jjsonschema.net/device",
            "type": "string"
        }
    },
    "required": [
        "device"
    ]
}

```

<example> (reported at conclusion of enumeration)

```

{

```

```

    "devices": [
      "TAS1D44140005",
      "TAS1C32140059"
    ]
  }

```

<schema>

```

{
  "$schema": "http://json-schema.org/draft-04/schema#",
  "type": "object",
  "properties": {
    "devices": {
      "type": "array",
      "items": [
        {
          "type": "string"
        },
        {
          "type": "string"
        }
      ]
    },
    "description": "Device serial numbers discovered during enumeration"
  },
  "required": [
    "devices"
  ]
}

```

Device Status Response:

<example>

```

{
  "status": {
    "device": "TAS1D4414007",
    "raw": {
      "streaming": "disabled"
    },
    "imu": {
      "accelerometer": "disabled",
      "gyroscope": "disabled",
      "magnetometer": "disabled",
      "temperature": "disabled"
    }
  }
}

```

<schema>

```

{
  "$schema": "http://json-schema.org/draft-04/schema#",
  "id": "http://jsonschema.net",

```

```
"type": "object",
"properties": {
  "status": {
    "id": "http://jsonschema.net/status",
    "type": "object",
    "properties": {
      "device": {
        "id": "http://jsonschema.net/status/device",
        "type": "string",
      },
      "raw": {
        "id": "http://jsonschema.net/status/raw",
        "type": "object",
        "properties": {
          "streaming": {
            "id": "http://jsonschema.net/status/raw/streaming",
            "type": "string",
            "enum": [
              "enabled",
              "disabled"
            ]
          }
        }
      }
    },
    "imu": {
      "id": "http://jsonschema.net/status/imu",
      "type": "object",
      "properties": {
        "accelerometer": {
          "id": "http://jsonschema.net/status/imu/accelerometer",
          "type": "string",
          "enum": [
            "enabled",
            "disabled"
          ]
        },
        "gyroscope": {
          "id": "http://jsonschema.net/status/imu/gyroscope",
          "type": "string",
          "enum": [
            "enabled",
            "disabled"
          ]
        },
        "magnetometer": {
          "id": "http://jsonschema.net/status/imu/magnetometer",
          "type": "string",
          "enum": [
            "enabled",
            "disabled"
          ]
        }
      }
    }
  }
}
```

```

    ]
  },
  "temperature": {
    "id": "http://jsonschema.net/status/imu/temperature",
    "type": "string",
    "enum": [
      "enabled",
      "disabled"
    ]
  }
}
}
},
"required": [
  "device",
  "raw",
  "imu"
]
}
},
"required": [
  "status"
]
}

```

Error Response:

<example>

```

{
  "error": {
    "code": "3",
    "description": "Unrecognized Configuration",
    "extra": "inu, mageenetometer"
  }
}

```

<schema>

```

{
  "$schema": "http://json-schema.org/draft-04/schema#",
  "id": "http://jsonschema.net",
  "type": "object",
  "properties": {
    "error": {
      "id": "http://jsonschema.net/error",
      "type": "object",
      "properties": {
        "code": {
          "id": "http://jsonschema.net/error/code",
          "type": "integer",
          "exclusiveMinimum": true,
          "exclusiveMaximum": true
        }
      }
    }
  }
}

```

```

    },
    "description": {
      "id": "http://jsonschema.net/error/description",
      "type": "string"
    },
    "extra": {
      "id": "http://jsonschema.net/error/extra",
      "type": "string"
    }
  },
  "required": [
    "code",
    "description",
  ]
}
},
"required": [
  "error"
]
}

```

<codes - descriptions>

```

0 - No Device Connected
1 - Device Not Found
2 - Device Enumeration In Progress
3 - Unrecognized Configuration
4 - SDK Access Disabled
5 - Device Connection Failed

```

Device Connection Messages:

<example>

```

{
  "deviceConnected": "TAS1D44140007"
}

```

<schema>

```

{
  "$schema": "http://json-schema.org/draft-04/schema#",
  "id": "http://jsonschema.net",
  "type": "object",
  "properties": {
    "deviceConnected": {
      "id": "http://jsonschema.net/deviceConnected",
      "type": "string"
    }
  }
},
"required": [

```



```
    "deviceConnected"  
  ]  
}
```

<example>

```
{  
  "deviceDisconnected": "TAS1D44140007"  
}
```

<schema>

```
{  
  "$schema": "http://json-schema.org/draft-04/schema#",  
  "id": "http://jsonschema.net",  
  "type": "object",  
  "properties": {  
    "deviceDisconnected": {  
      "id": "http://jsonschema.net/deviceConnected",  
      "type": "string"  
    }  
  },  
  "required": [  
    "deviceDisconnected"  
  ]  
}
```