**Table 4-1 Request Packet Type to Transaction Type Cross Reference**

| **Request Packet Format (ftype)** | **ftype Description** | **Transaction Type  (ttype)** | **ttype Description** | **Payload** | **Document Section No. (Move column left)** |
| --- | --- | --- | --- | --- | --- |
| 0 | Implementation-Defined |  |  |  | Part ??? Section 4.1.3 |
| 1 | Intervention-Request Class | 0 | READ\_OWNER | No | Section 4.1.4 |
| 1 | READ\_TO\_OWN\_OWNER |
| 2 | IO\_READ\_OWNER |
| 3-15 | Reserved |
| 2 | Request class | 0 | READ\_HOME | No | Section 4.1.5 |
| 1 | READ\_TO\_OWN\_HOME |
| 2 | IO\_READ\_HOME |
| 3 | DKILL\_HOME |
| 4 | NREAD transaction |
| 5 | IKILL\_HOME |
| 6 | TLBIE |
| 7 | TLBSYNC |
| 8 | IREAD\_HOME |
| 9 | FLUSH without data |
| 10 | IKILL\_SHARER |
| 11 | DKILL\_SHARER |
| 12 | ATOMIC inc: post-increment the data |
| 13 | ATOMIC dec: post-decrement the data |
| 14 | ATOMIC set: set the data (write 0b11111...) |
| 15 | ATOMIC clr: clear the data (write 0b00000...) |
| 3 | Reserved |  |  |  | Section 4.1.6 |
| 4 | Reserved |  |  |  |
| 5 | Write Class | 0 | CASTOUT | Yes | Section 4.1.7 |
| 1 | FLUSH with data |
| 2-3 | Reserved |
| 4 | NWRITE transaction |
| 5 | NWRITE\_R transaction |
| 6-11 | Reserved |
| 12 | ATOMIC swap: read and return the data, unconditionally write with supplied data. |
| 13 | ATOMIC compare-and-swap: read and return the data, if the read data is equal to the first 8 bytes of data payload, write the second 8 bytes of data to the memory location |
| 14 | ATOMIC test-and-swap: read and return the data, compare to 0, write with supplied data if compare is true |
| 15 | Reserved |
| 6 | Streaming-Write Class | N/A |  | Yes | Section 4.1.8 |
| 7 | Flow Control Class | N/A |  | No | Section 4.1.9 |
| 8 | Maintenance Class | 0 | Maintenance read request | No | Section 4.1.10 |
| 1 | Maintenance write request | Yes |
| 2 | Maintenance read response | Yes |
| 3 | Maintenance write response | No |
| 4 | Maintenance port-write request | Yes |
| 5-15 | Reserved |  |
| 9 | Data-Streaming Class | N/A |  | Yes | Section 4.1.11 |
| 10 | Doorbell Class | N/A |  | Yes |
| 11 | Message Class | N/A |  | Yes |
| 12 | Reserved |  |  |  | Section ??? |
| 13 | Response Class | 0 | RESPONSE transaction with no data payload, including DOORBELL response | No | Section ??? |
| 1 | MESSAGE RESPONSE transaction | No |
| 2-7 | Reserved |  |
| 8 | RESPONSE transaction with data payload | Yes |
| 9-15 | Reserved |  |
| 14 | Reserved |  |  |  | Section ??? |
| 15 | Implementation-Defined |  |  |  | Section ??? |