# Appendix A: OCP Protocol Support

This appendix describes support in CFG Orion and CFG Gemini for **Open Core Protocol 2.2 Specification Rev 1.0.**

## OCP Feature Adoption

Following table below provides a summary of OCP master configuration parameters supported by NocStudio.

| OCP parameter | OCP default | CFG default | CFG allowed values |
| --- | --- | --- | --- |
| addr | 1 | 1 | 1 |
| addr\_wdth | No default | 40 | 14-60 |
| addrspace | 0 | 0 | 0 |
| addrspace\_wdth | No default | 0 | 0 |
| atomiclength | 0 | 0 | 0 |
| atomiclength\_wdth | No default | 0 | 0 |
| blockheight | 0 | 0 | 0 |
| blockheight\_wdth | No default | 0 | 0 |
| blockstride | 0 | 0 | 0 |
| blockstride\_wdth | No default | 0 | 0 |
| broadcast\_enable | 0 | 0 | 0 |
| burst\_aligned | 0 | 0 | 0 |
| burstlength | 0 | 0 | 0|1 |
| burstlength\_wdth | No default | 0 | 0,2-8 |
| burstprecise | 0 | 0 | 0 (MBurstPrecise tied off to 1) |
| burstseq | 0 | 0 | 0|1 |
| burstseq\_blck\_enable | 0 | 0 | 0 |
| burstseq\_dflt1\_enable | 0 | 0 | 0 |
| burstseq\_dflt2\_enable | 0 | 0 | 0 |
| burstseq\_incr\_enable | 1 | 1 | 1 |
| burstseq\_strm\_enable | 0 | 1 | 0|1 |
| burstseq\_unkn\_enable | 0 | 0 | 0 |
| burstseq\_wrap\_enable | 0 | 1 | 0|1 |
| burstseq\_xor\_enable | 0 | 0 | 0 |
| burstsinglereq | 0 | 0 | 0|1 |
| byteen | 0 | 1 | 0|1 |
| clkctrl\_enable | 0 | 0 | 0 |
| cmdaccept | 1 | 1 | 0|1 |
| connid | 0 | 0 | 0|1 |
| connid\_wdth | No default | 0 | 0-63 |
| control | 0 | 0 | 0 |
| control\_wdth | No default | 0 | 0 |
| controlbusy | 0 | 0 | 0 |
| controlwr | 0 | 0 | 0 |
| dataaccept | 0 | 0 | 0|1 |
| datahandshake | 0 | 0 | 0|1 |
| datalast | 0 | 0 | 0|1 |
| datarowlast | 0 | 0 | 0 |
| data\_wdth | No default | 32 | 32|64|128|256|512 |
| enableclk | 0 | 0 | 0|1 |
| endian | little | little | little|big |
| force\_aligned | 0 | 1 | 1 |
| interrupt | 0 | 0 | 0 |
| jtag\_enable | 0 | 0 | 0 |
| jtagtrst\_enable | 0 | 0 | 0 |
| mdata | 1 | 1 | 1 |
| mdatabyteen | 0 | 0 | 0|1 |
| mdatainfo | 0 | 0 | 0|1 |
| mdatainfobyte\_wdth | 0 | 0 | 0-8 |
| mdatainfo\_wdth | 0 | 0 | 0-544 |
| merror | 0 | 0 | 0 |
| mflag | 0 | 0 | 0 |
| mflag\_wdth | 0 | 0 | 0 |
| mreset | No default | 0 | 0 |
| mthreadbusy | 0 | 0 | 0|1 |
| mthreadbusy\_exact | 0 | 0 | 0|1 (must be tied to 1 if enabled) |
| mthreadbusy\_pipelined | 0 | 0 | 0|1 |
| rdlwrc\_enable | 0 | 0 | 0 |
| read\_enable | 1 | 1 | 0|1 |
| readex\_enable | 0 | 0 | 0 |
| reqdata\_together | 0 | 0 | 0 |
| reqinfo | 0 | 0 | 0|1 |
| reqinfo\_wdth | No default | 0 | 0-32 |
| reqlast | 0 | 0 | 0|1 |
| reqrowlast | 0 | 0 | 0 |
| resp | 1 | 1 | 1 |
| respaccept | 0 | 0 | 0|1 |
| respinfo | 0 | 0 | 0|1 |
| respinfo\_wdth | No default | 0 | 0-32 |
| resplast | 0 | 0 | 0|1 |
| resprowlast | 0 | 0 | 0 |
| scanport | 0 | 0 | 0 |
| scanport\_wdth | No default | 0 | 0 |
| scanctrl\_wdth | 0 | 0 | 0 |
| sdata | 1 | 1 | 1 |
| sdatainfo | 0 | 0 | 0|1 |
| sdatainfobyte\_wdth | 0 | 0 | 0-8 |
| sdatainfo\_wdth | 0 | 0 | 0-544 |
| sdatathreadbusy | 0 | 0 | 0|1 |
| sdatathreadbusy\_exact | 0 | 0 | 0|1 |
| sdatathreadbusy\_pipelined | 0 | 0 | 0|1 |
| serror | 0 | 0 | 0 |
| sflag | 0 | 0 | 0 |
| sflag\_wdth | No default | 0 | 0 |
| sreset | No default | 1 | 1 |
| status | 0 | 0 | 0 |
| status\_wdth | No default | 0 | 0 |
| statusbusy | 0 | 0 | 0 |
| statusrd | 0 | 0 | 0 |
| sthreadbusy | 0 | 0 | 0|1 |
| sthreadbusy\_exact | 0 | 0 | 0|1 |
| sthreadbusy\_pipelined | 0 | 0 | 0|1 |
| taginorder | 0 | 0 | 0|1 |
| tag\_interleave\_size | 1 | 1 | 0|1 |
| tags | 1 | 1 | >=0 |
| threads | 1 | 1 | 1-4 |
| write\_enable | 1 | 1 | 0|1 |
| writenonpost\_enable | 0 | 0 | 0|1 |
| writeresp\_enable | 0 | 0 | 0|1 |

Following table below provides a summary of OCP slave configuration parameters supported by NocStudio.

| OCP parameter | OCP default | CFG default | CFG allowed values |
| --- | --- | --- | --- |
| addr | 1 | 1 | 1 |
| addr\_wdth | No default | 40 | 14-60 |
| addrspace | 0 | 0 | 0 |
| addrspace\_wdth | No default | 0 | 0 |
| atomiclength | 0 | 0 | 0 |
| atomiclength\_wdth | No default | 0 | 0 |
| blockheight | 0 | 0 | 0 |
| blockheight\_wdth | No default | 0 | 0 |
| blockstride | 0 | 0 | 0 |
| blockstride\_wdth | No default | 0 | 0 |
| broadcast\_enable | 0 | 0 | 0 |
| burst\_aligned | 0 | 0 | 0 |
| burstlength | 0 | 0 | 0|1 |
| burstlength\_wdth | No default | 0 | 0,2-9 |
| burstprecise | 0 | 0 | 0|1 |
| burstseq | 0 | 0 | 0|1 |
| burstseq\_blck\_enable | 0 | 0 | 0 |
| burstseq\_dflt1\_enable | 0 | 0 | 0 |
| burstseq\_dflt2\_enable | 0 | 0 | 0 |
| burstseq\_incr\_enable | 1 | 1 | 1 |
| burstseq\_strm\_enable | 0 | 1 | 0|1 |
| burstseq\_unkn\_enable | 0 | 0 | 0 |
| burstseq\_wrap\_enable | 0 | 1 | 0|1 |
| burstseq\_xor\_enable | 0 | 0 | 0 |
| burstsinglereq | 0 | 0 | 0|1 |
| byteen | 0 | 1 | 0|1 |
| clkctrl\_enable | 0 | 0 | 0 |
| cmdaccept | 1 | 1 | 0|1 |
| connid | 0 | 0 | 0|1 |
| connid\_wdth | No default | 0 | 0-63 |
| control | 0 | 0 | 0 |
| control\_wdth | No default | 0 | 0 |
| controlbusy | 0 | 0 | 0 |
| controlwr | 0 | 0 | 0 |
| dataaccept | 0 | 0 | 0|1 |
| datahandshake | 0 | 0 | 0|1 |
| datalast | 0 | 0 | 0|1 |
| datarowlast | 0 | 0 | 0 |
| data\_wdth | No default | 32 | 32|64|128|256|512 |
| enableclk | 0 | 0 | 0|1 |
| endian | little | little | little|big |
| force\_aligned | 0 | 0 | 0 |
| interrupt | 0 | 0 | 0 |
| jtag\_enable | 0 | 0 | 0 |
| jtagtrst\_enable | 0 | 0 | 0 |
| mdata | 1 | 1 | 0|1 |
| mdatabyteen | 0 | 0 | 0|1 |
| mdatainfo | 0 | 0 | 0|1 |
| mdatainfobyte\_wdth | 0 | 0 | 0-8 |
| mdatainfo\_wdth | 0 | 0 | 0-544 |
| merror | 0 | 0 | 0 |
| mflag | 0 | 0 | 0 |
| mflag\_wdth | 0 | 0 | 0 |
| mreset | No default | 1 | 1 |
| mthreadbusy | 0 | 0 | 0|1 |
| mthreadbusy\_exact | 0 | 0 | 0|1 |
| mthreadbusy\_pipelined | 0 | 0 | 0|1 |
| rdlwrc\_enable | 0 | 0 | 0 |
| read\_enable | 1 | 1 | 0|1 |
| readex\_enable | 0 | 0 | 0 |
| reqdata\_together | 0 | 0 | 0 |
| reqinfo | 0 | 0 | 0|1 |
| reqinfo\_wdth | No default | 0 | 0-32 |
| reqlast | 0 | 0 | 0|1 |
| reqrowlast | 0 | 0 | 0 |
| resp | 1 | 1 | 1 |
| respaccept | 0 | 0 | 0|1 |
| respinfo | 0 | 0 | 0|1 |
| respinfo\_wdth | No default | 0 | 0-32 |
| resplast | 0 | 0 | 0|1 |
| resprowlast | 0 | 0 | 0 |
| scanport | 0 | 0 | 0 |
| scanport\_wdth | No default | 0 | 0 |
| scanctrl\_wdth | 0 | 0 | 0 |
| sdata | 1 | 1 | 1 |
| sdatainfo | 0 | 0 | 0|1 |
| sdatainfobyte\_wdth | 0 | 0 | 0-8 |
| sdatainfo\_wdth | 0 | 0 | 0-544 |
| sdatathreadbusy | 0 | 0 | 0|1 |
| sdatathreadbusy\_exact | 0 | 0 | 0|1 (must be tied to 1 if enabled) |
| sdatathreadbusy\_pipelined | 0 | 0 | 0|1 |
| serror | 0 | 0 | 0 |
| sflag | 0 | 0 | 0 |
| sflag\_wdth | No default | 0 | 0 |
| sreset | No default | 0 | 0 |
| status | 0 | 0 | 0 |
| status\_wdth | No default | 0 | 0 |
| statusbusy | 0 | 0 | 0 |
| statusrd | 0 | 0 | 0 |
| sthreadbusy | 0 | 0 | 0|1 |
| sthreadbusy\_exact | 0 | 0 | 0|1 (must be tied to 1 if enabled) |
| sthreadbusy\_pipelined | 0 | 0 | 0|1 |
| taginorder | 0 | 0 | 0|1 |
| tag\_interleave\_size | 1 | 1 | 0|1 |
| tags | 1 | 1 | >=0 |
| threads | 1 | 1 | 1-4 |
| write\_enable | 1 | 1 | 0|1 |
| writenonpost\_enable | 0 | 0 | 0|1 |
| writeresp\_enable | 0 | 0 | 0|1 |