**Instruction Function Comparison between ATMEGA328P vs LGT8XM**

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|  | Number of clock cycles to carry out instruction | |
| Instruction | **ATMEGA328P** | **LGT8F328P** |
| ADIW Add immediate to word | 2 | 1 |
| SBIW Subtract immediate to word | 2 | 1 |
| MUL / S / SU 8bit multiply | 2 | 1 |
| FMUL / S / SU Fractional multiply | 2 | 1 |
| RJMP / RCALL Relative jump / call | 2-3 | 1 |
| IJMP / ICALL Indirect jump / call 2 | 2-3 | 1 |
| RET / IRET Return 4 2 | 4 | 2 |
| CPSE Compare, skip if equal | 1-3 | 1-2 |
| SBIS / SBRS Skip if set | 1-3 | 1-2 |
| SBIC / SBRC Skip if cleared | 1-3 | 1-2 |
| LD / LDD Load indirect | 2 | 1 |
| ST / STD Store indirect | 2 | 1 |
| LPM Load program memory | 3 | 2 |
| PUSH / POP Stack access | 2 | 1 |

As you can see the LGT8F328P executes several instructions much more quickly thus aiding its speed compared to the older ATMeaga328P.