A3. Cover sheet.

1. NUSH Self-Synchro Stream

2. Self-synchronising stream cipher. Proposed security level:

a) *High.* Complexity of a key reconstruction equals to $10^{**}61$ elementary operations with memory requirements for about $10^{**}18$ output keysteram bits. An elementary operation is equivalent to generation, writing to (reading from) memory and comparison of two output keystream blocks as long as necessary for key reconstruction..

b) *Normal.* Complexity of a key reconstruction equals to $10^{**}22$ elementary operations with memory requirements for about $10^{**}18$ output keystream bits. An elementary operation is equivalent to generation, writing to (reading from) memory and comparison of two output keystream blocks as long as necessary to reconstruct a key.

Proposed environment: An eavesdropper knows all the details of the algorithm, can get and write down in memory at most as many as $10^{**}18$ output keystream bits generated by the same key. He can also search through the memory in an efficient way such as a dichotomic search, lexicographic search etc.

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